



ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE

COUNTY BOROUGH OF CARDIFF,

FOR THE YEAR 1904.

EDWARD WALFORD, M.D., Durh.,
D.P.H., CAMB., FELLOW OF THE SANITARY INSTITUTE,
MEDICAL OFFICER OF HEALTH.

Printed by Order of the Sanitary Authority.

CARDIFF:
WESTERN MAIL, LIMITED.
—
1905.

Health and Port Sanitary Committee.

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„ JOHN CHAPPELL.	„ JOSEPH STANFIELD.

COUNTY BOROUGH OF CARDIFF.

Medical Officer of Health's Department.

Medical Officer of Health :

EDWARD WALFORD, M.D., D.P.H.

Chief Inspector of Nuisances :

D. VAUGHAN.

District Inspectors :

T. W. WARREN.*

W. FISHER.*

S. EVANS.*

J. STRANGE.*

F. GLOVER.*

S. JEFFERY.*

Inspectors of Infectious Diseases :

GEO. THOMAS.*

A. F. MALE.*

Assistant Inspector of Infectious Diseases and Clerk :

T. CHANT.*

Inspector of Lodging Houses :

J. W. HOLDEN.*

Inspector of Dairies, Cowsheds, and Milkshops, and under Sale of Food and Drugs Acts :

A. J. GREEN.

Inspector under Shop Hours Act, and Inspector of Workshops :

J. ASHMAN.*

Inspector of Meat and other Foods :

G. M. MCGREGOR.*†

Woman Inspector :

Miss A. HOYLE.*

Disinfectors at Disinfecting Station :

W. THOMAS.

W. WEBSTER.

Disinfectors :

F. DAVEY.

Clerk :

W. JENKINS.

* Cert. of San. Inst.

† Cert. Meat Insp.

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COUNTY BOROUGH OF CARDIFF.

TOWN HALL,

CARDIFF,

MAY, 1905.

TO THE CHAIRMAN AND MEMBERS OF THE

HEALTH AND PORT SANITARY COMMITTEE.

GENTLEMEN,

I have the honour of submitting to you my Report for the year 1904, made in accordance with Article 18 (Section 14) of the Local Government Board's Order of March, 1891, which specifies the information to be contained in the Annual Report of the Medical Officer of Health, as follows —

“ He shall make an annual report to the Sanitary Authority, up to the end of December in each year, comprising a summary of the action taken, or which he has advised the Sanitary Authority to take, during the year for preventing the spread of disease, and an account of the sanitary state of his district generally at the end of the year. The report shall also contain an account of the inquiries which he has made as to conditions injurious to health existing in the district, and of the proceedings in which he has taken part or advised under any Statute, so far as such proceedings relate to those conditions; and also an account of the supervision exercised by him, or on his advice, for sanitary purposes over places and houses that the Sanitary Authority have power to regulate, with the nature and results of any proceedings which may have been so required and taken in respect of the same during the year. The report shall also record the action taken by him, or on his advice, during the year, in regard to offensive trades, to dairies, cowsheds, and milk shops, and to factories and workshops.

“ The report shall also contain tabular statements (on forms to be supplied by us, or to the like effect) of the sickness and mortality within the district, classified according to diseases, ages, and localities.”

Under Section 132 of the Factory and Workshop Act 1901, the Medical Officer of Health is also required to report annually on the administration of this Act in workshops and workplaces, and to send a copy of his annual report, or so much of it as deals with this subject, to the Secretary of State. The report should also include an account of the action with respect to factories, workshops, and workplaces taken under the Public Health Acts, as well as under the Factory and Workshop Act 1901, and should contain a record of any certificates of suitability which have been granted by the Sanitary Authority during the year with respect to underground bakehouses in use at the passing of this Act.

Besides and beyond the Statutory duties set forth in the above-mentioned Order of the Local Government Board, the Medical Officer of Health has during the year advised and carried out work at the request of the Education Committee, and of the Local Supervising Authority under the Midwives Act 1902. A summary of the action taken on behalf of these two bodies will be contained in this report.

In a memorandum issued by Mr. W. H. Power, C.B., the Medical Officer of the Local Government Board, dated October, 1904, the subjects concerning which the Board desire to obtain information are enumerated as follows:—

- (1) Physical features and general character of the district.
- (2) House accommodation, especially for the working classes; its adequacy and fitness for habitation; sufficiency of open space about houses, and cleanliness of surroundings.

- (3) Sewerage and drainage : its sufficiency in all parts of the district. Condition of sewers and house drains. Method or methods of disposal of sewage. Localities where improvements are needed.
- (4) Excrement disposal : system in vogue ; defects, if any.
- (5) Removal and disposal of house refuse : whether by public scavenger or occupiers ; frequency and method.
- (6) Water supply of the district or its several parts : its source (from public service or otherwise), nature (river water, well water, upland water, &c.), sufficiency, wholesomeness, and freedom (by special treatment or otherwise) from risks of pollution.
- (7) Places over which the Council have supervision, *e.g.*, lodging houses, slaughter houses, dairies, cowsheds, and milk shops, bakehouses, factories and workshops, and offensive trades.
- (8) Nuisances : proceedings for their abatement—any remaining unabated.
- (9) Methods of dealing with infectious diseases : notification, isolation hospital accommodation, and its sufficiency ; disinfection.

In addition to the above, the report will contain statistical returns relating to the mortality and sickness in the district during past years, and during the year under consideration.

PHYSICAL FEATURES OF DISTRICT.—An account of the geology of the District was inserted in the report for the year 1903, it will therefore be unnecessary to repeat in detail the information upon this subject given therein.

The County Borough of Cardiff comprises 6,373 acres of land and inland water, exclusive of foreshore and tidal water, and is situated upon impervious strata consisting for the most part of new red marl ; resting upon this formation are the more superficial deposits of river gravel, more or less saturated with water. A gradual rise in the gravel takes place towards the north, so as to attain a level of nearly 40 feet above Ordnance Datum in Queen Street and the Newport Road, and 50 feet at Cathays, where, resting on the red marl, it forms a deposit to a depth varying from 8 to 20 feet of good building land, upon which the greater part of the north-east side of the town is constructed. The part of the town situated on the West of the River Taff is, in the northern or Canton district, on an alluvial deposit of clay, sand, and gravel ; the southern, or Grangetown ward being on the estuarine mud—a stiff blue clay of marine origin, which forms also the soil in the neighbourhood of the Docks and South Splott. This low-lying part of the town is now protected from the sea and tidal waters by banks, and has in many parts been raised by the deposit of made soil composed of ashes and house refuse collected by the public scavengers. The southern part of the town therefore consists of alluvial land at a very slight elevation above the ordinary sea level near the mouths of the Rivers Rhymney, Taff, and Ely.

The Rhymney and Ely, at the points at which they enter the Bristol Channel, forming respectively the eastern and western limits of the Borough ; the Taff flowing in a southerly direction forms a natural division of the town into east and west, each having a separate drainage system.

The area of the Borough is distributed in Registration Sub-districts as follows :—East Cardiff 481 acres, Central Cardiff 3,832 acres, and West Cardiff 2,060 acres, and into Ten Municipal Wards, containing the civil parishes of Canton, Roath, St. John, and St. Mary.

Cardiff is well provided with parks and open spaces, forming admirable recreation grounds and breathing spaces for the inhabitants of the crowded parts of the town. Those places, which belong to the public and are under the control of the Cardiff Corporation, comprise a total area of nearly 300 acres, as follows :—

					Acreage, Exclusive of Roads.			
					Ac.	R.	P.	
Roath Park (part of)	..	..	..	..	100	..	0	0
Victoria Park	..	..	..	..	19	..	2	36
Canton Park	..	..	..	..	12	..	0	0
Loudoun Square	..	..	..	..	1	..	1	36
Howard Gardens	..	..	..	..	1	..	0	36
Adamsdown Square	..	..	..	..	0	..	1	32
Plasturton Gardens	..	..	..	..	0	..	2	39
Dispenser	..	..	..	..	0	..	3	23
Clare	..	..	..	..	0	..	0	36½
Moorland	..	..	..	..	1	..	2	5½
Grangetown	..	..	..	..	3	..	0	31
Llanbleddian	..	..	..	..	0	..	0	37
Ruthin	..	..	..	..	0	..	0	28
Senghenydd	..	..	..	..	0	..	1	7
„ (North)	..	..	..	..	0	..	0	12
„ (South)	..	..	..	..	0	..	1	18
Windsor Esplanade Gardens	..	..	..	..	0	..	0	27
Roath Village Green	..	..	..	..	3	..	0	0
Roath Open Space	..	..	..	..	18	..	0	0
Splott Recreation Ground	..	..	..	..	70	..	3	2
Llandaff Fields	..	..	..	..	60	..	0	0
Cathays Park	..	..	..	..
Total					294	..	2	6

In addition to the above-named open spaces, the public has, through the generosity of the owners, free access to the following parks and fields —

	Ac.	R.	P.
Sophia Gardens	41	3	0
Sir David's Field	9	0	0
Cardiff Arms Park	21	2	0

HOUSE ACCOMMODATION.—The following table gives the number of houses within each Municipal Ward in the Borough of Cardiff, as shown by the enumeration made in June, 1904, by the Inspectors in the Department of the Medical Officer of Health :—

TABLE I.

WARDS.	Area in Acres.	HOUSES.				POPULATION.
		Inhabited.	Vacant.	Building.	Total.	
Central	473	1,947	408	2	2,357	11,292
South	519	1,842	104	—	1,946	10,688
Cathays	369	3,606	67	31	3,704	20,914
Adamsdown	1,570	2,126	127	—	2,253	12,330
Riverside	313	3,127	110	5	3,242	18,136
Canton	449	4,090	103	24	4,217	23,722
Grangetown	1,905	3,373	149	—	3,522	19,563
Roath	766	2,730	82	22	2,834	15,834
Park...	533	4,410	80	28	4,518	25,578
Splott	1,454	2,848	104	—	2,952	16,518
TOTALS	8,351	30,099	1,334	112	31,545	174,574

TABLE II.

Taken from the Census returns—shows the number of inhabited houses and population in Registration Sub-Districts in 1891 and 1901 :—

Registration Sub-Districts.	Area in Statute Acres. Land and Inland Water.	Inhabited Houses.		Enumerated Population.		Increase or Decrease of Population between 1891 and 1901.	
		1891	1901	1891	1901	Increase.	Decrease.
East Cardiff...	481	5,838	9,297	35,294	52,585	17,291	—
Central Cardiff...	3,832	8,102	8,835	53,824	54,316	492	—
West Cardiff...	2,060	6,536	9,843	39,797	57,432	17,635	—

The following table, taken from the Census returns of 1901, shows the total tenements, and tenements of less than five rooms, distinguishing those occupied by various numbers of persons, in the County Borough of Cardiff :—

TABLE III.

	Rooms in Tenements	Tenements of less than 5 rooms.	PERSONS PER TENEMENT.									
			1	2	3	4	5	6	7	8	9	10 or more.
Total tenements, 33,824	1	720	448	197	60	11	3	1	—	—	—	—
	2	4,251	784	1,590	1,029	541	213	67	15	8	3	—
Tenements of less	3	2,121	81	442	509	402	329	177	108	50	17	6
than 5 rooms... 721	4	4,087	65	529	758	821	715	546	313	183	101	56

Cardiff being for the most part a comparatively new town, the housing accommodation for the working classes is on the whole satisfactory, and overcrowding does not exist to any extent. A few cases, however, come to the notice of the Sanitary Officers from time to time. No legal definition of overcrowding exists, except in the case of premises under the control of bye-laws, as for instance common lodging houses and seamen's boarding houses, and in the case of workshops in the terms of the Factory and Workshops Act.

For the purposes of the Census, the Registrar General defines overcrowding as being the occupation of a dwelling with more than two adults to each room, counting two children under 12 years of age as equivalent to one adult. From the above table it will be seen that out of 720 one-roomed tenements, not more than 75 are occupied by more than two persons, and 60 of these are occupied by three persons, it is evident therefore that overcrowding does not occur in many of these tenements. In the Census returns relating to occupied tenements, adults are not distinguished from children, so that we may fairly assume that no very serious overcrowding exists unless the average number of persons per room exceeds three. Adopting this standard, Cardiff compares favourably with some of the large towns, in which the difficulty of housing the poor, in a satisfactory manner, is acutely felt. This will be seen from the following table which gives, in several towns, the percentage proportion of the one and two-roomed tenements, respectively, containing more than three persons per room :—

TABLE IV.

Birmingham	..	1	room tenements	..	5.5%	more than 3 persons per room.		
"	..	2	"	"	3.6%	"	"	"
Bristol	..	1	"	"	3.7%	"	"	"
"	..	2	"	"	.9%	"	"	"
Newcastle	..	1	"	"	33.9%	"	"	"
"	..	2	"	"	16%	"	"	"
Liverpool	..	1	"	"	11%	"	"	"
"	..	2	"	"	4.1%	"	"	"
Manchester	..	1	"	"	6.1%	"	"	"
"	..	2	"	"	3.2%	"	"	"
Salford	..	1	"	"	10%	"	"	"
"	..	2	"	"	5.3%	"	"	"
Durham	..	1	"	"	24%	"	"	"
"	..	2	"	"	14%	"	"	"
Cardiff	..	1	"	"	2%	"	"	"
"	..	2	"	"	.6%	"	"	"

The following table shows the density of the population, or the average number of persons per acre of ground, within the Borough:—

TABLE V.

COUNTY BOROUGH OF CARDIFF.

*DENSITY OF POPULATION DURING THE PAST TEN YEARS.

Year.	Persons per Acre			
1895	22.4
1896	22.9
1897	23.5
1898	24.1
1899	24.7
1900	25.3
1901	25.9
1902	26.5
1903	27.0
1904	27.6

* Calculated on the basis of the revised population, and on area of 6,373 acres.

From an inspection of the District made in June, 1904, it was found that there were 1,334 vacant houses, and that 112 were in the process of building, there is therefore at the present time no lack of house accommodation in the town. Large block tenemented artizans dwellings, so objectionable on account of the overcrowding on a limited area which results, do not exist in Cardiff. Most of the working class families occupy separate dwellings, with an open space in the back and front, and sub-let one or two rooms to lodgers or other small families. Private Building Companies have, in some quarters of the town, *i.e.*, Grangetown and Adamsdown, provided single tenement cottages, in which no lodgers are taken, at a rental of about 5/- per week. These houses provide excellent accommodation, containing usually four rooms in each house, and are seldom unoccupied for any length of time. The number of houses and shops built in the Borough in each year since 1894 is shown in the following table:—

TABLE VI.

From August, 1894 to August, 1895	..	1,507
" " 1895 " " 1896	..	1,196
" " 1896 " " 1897	..	1,247
" " 1897 " " 1898	..	1,258
" " 1898 " " 1899	..	624
" " 1899 " " 1900	..	267
" " 1900 " " 1901	..	230
" " 1901 " " 1902	..	185
" " 1902 " " 1903	..	398
" " 1903 " " 1904	..	225

There are no large insanitary areas in the Borough which could be conveniently dealt with for the purposes of an Improvement Scheme, under Part I. of the Housing of the Working Classes Act, 1890, but a considerable number of houses have been closed as unfit for human habitation, under the provisions of Part II. of the Act. Amongst the dwellings which have been permanently closed (since 1890) either by a closing order as provided by Sec. 32 of the Act, or by the voluntary action of the owner after initial proceedings by the Sanitary Authority may be mentioned:—Mill Lane Court, 34 houses in Stanley Street, 12 houses in Leekwith Road, Kettle Court, Evans' Court, Union Buildings, Sandon Court, Dalton Court, Rising Sun Court, Jones' Court (Womanby Street), The Tunnel (Queen Street), Temperance Terrace (Working Street) Queen's Place, Masons' Arms Court, Love Lane Court, Castle Court, Moulders' Arms Court, Bryants' Court, Matthews' Court, Stacey Court, Picton Cottages, Stag Terrace, Jenkins' Court, Gullivers' Court, Evans' Court, Jonathans' Court, and Spring Garden Court.

Some difficulty occasionally occurred in the administration of this Act, as it was necessary in all cases, before applying to the Court of Summary Jurisdiction for a closing order, to serve a notice upon the owner or occupier of the house to abate a nuisance, and to place the premises in a good sanitary condition, although it was obvious that this notice could not be complied with. This difficulty has now been overcome by the passing of the Housing of the Working Classes Act, 1903, which amends the procedure for closing orders, and enables the Local Authority to apply for a closing order although such notice has not been served.

From the Table of House Inspection contained in this report it will be seen that a large number of sanitary defects have been discovered by the Inspectors during the year. These were remedied for the most part either at the written request of the Inspector of Nuisances or upon the service of a preliminary notice. In some few cases it was necessary to proceed for the abatement of the nuisance in accordance with the provisions of the Public Health Act.

The erection of new houses, together with the construction of their drainage, is under the control of the Borough Engineer and Surveyor. All such dwellings are constructed subject to the new Building Bye-laws which came into force on the 21st March, 1900.

SEWERAGE AND DRAINAGE.—With the exception of one or two cottages situated in the outskirts, all houses within the Borough are provided with water closets, and are drained into the public sewers. A detailed description of the sewerage of the town has been given in previous reports.

The sewage is conveyed by gravitation through pipe drains and brick sewers to the outfalls, which discharge their contents into the River Taff and Bristol Channel. No nuisance has been detected on the foreshore as the sewage is rapidly carried out to sea by the strong tides which prevail in this Channel, and it has not therefore been found necessary to adopt any system of purification. The sewers on the eastern side of the Taff discharge by three outfalls into the Bristol Channel. Those on the western side into the estuary of the river.

Owing to the increase of the population, and in the number of houses, the capacity of the western sewers have been found insufficient, and an extension of this system is now being carried out by the construction of a new outfall sewer into the Bristol Channel, which will convey the entire sewage of this district to a point near Lavernock. By this means the inconvenience and danger, which has at times been caused by the backing up of the sewage, will be entirely obviated.

By the adoption and enforcement of the new Building Bye-laws, a more efficient control over the drainage of new houses is obtained, more especially with respect to the disconnection of the house drains from the public sewer by means of a suitably constructed ventilating disconnection trap, placed within the curtilage of the building and at a point as distant as possible from the building and as near as practicable to the point at which the house drain may be connected to the sewer.

REMOVAL AND DISPOSAL OF HOUSE REFUSE, SCAVENGING, &c.—This work is undertaken by the Sanitary Authority, and is under the control of Mr. J. Woosey, the Superintendent of this Department, from whom I have obtained the following particulars connected with the routine of the work.

The main thoroughfares and all side streets are swept every day between the hours of 7 a.m. and 5 p.m.

Shop refuse is cleared from 7.30 a.m. to 8 a.m. every morning

All main thoroughfares cleared by 11 a.m.

Household refuse is cleared three nights weekly, commencing at 11 p.m. to 6 a.m. on Monday, Wednesday, and Friday nights. All householders are requested to place refuse in a suitable receptacle in the channel in front of the house they occupy. Thirty-five horses and waggons are required three nights weekly to attend to this work.

One hundred and twenty waggon loads is the average each night from 11 p.m. to 6 a.m.

Back lanes are cleared three days weekly, from 1 p.m. to 4 p.m. Waggons go round with bells, when occupier places the ash receptacle inside the yard or garden door ready for men to remove it.

I am of opinion that some more efficient method should be adopted for cleansing those streets within the Borough which are paved with wood. At present too much reliance seems to be placed upon the cleansing effect of rain, with the result that these streets are, during wet weather, unnecessarily muddy, and during dry weather the dust arising from them causes a considerable amount of inconvenience and nuisance.

Many of the cabstands in the town receive a quite insufficient supply of water, and their condition at times gives rise to justifiable complaints.

In all probability the dust from the roads and from the cabstands affects injuriously the public health. The scavenging carts should also be provided with suitable covers in order to prevent their contents from blowing about the streets.

WATER SUPPLY.—Cardiff is provided with an abundant and pure supply of soft water obtained from the Taff Fawr Watershed of the Brecon Beacons. To Mr. C. H. Priestley, M.I.C.E., Waterworks Engineer, I am indebted for the following information. The gathering ground is situated to the north of the South Wales Coalfield, on the old red sandstone formation, about 35 miles from Cardiff. The watershed consists of 10,400 acres of mountain pasture land, and the water is conveyed by gravitation from the storage reservoirs down the Taff Valley to the reservoirs at Lisvane and Llanishen; balancing reservoirs being placed at suitable situations along the line of the main conduit.

The capacity of the storage reservoirs is as follows:—

Beacons Storage Reservoir	Taff Fawr,	345,000,000 gallons.
Cantreff	" "	322,000,000 "
Llanishen	" "	317,000,000 "
Lisvane	" "	80,000,000 "

Besides the storage reservoirs the works comprise several smaller service reservoirs and filter beds. The average rainfall at the Beacons Reservoir for the 20 years 1885-1904 was 78.11 inches.

The average consumption of water per head per day within the limits of the Borough during the year 1904 was 25 gallons.

Bacteriological examinations and chemical analyses of the Cardiff Water Supply are made at the Public Health Laboratory, and submitted to the Waterworks Committee at their monthly meetings. The results of these examinations, which are given below, show that the water is of excellent quality. On one or two occasions during the year the water in the Beacons Reservoir showed signs, from the bacteriological and chemical examinations, of slight animal and vegetable pollution. On visiting this reservoir with Mr. Priestley and Dr. Schölberg, our Bacteriologist, it was found that the most obvious source of pollution was the Storey Arms Inn, situated within a short distance of the reservoir, the sanitary arrangements of which left much to be desired. I therefore called the attention of the Committee to the possible danger of this pollution, and advised that steps should be taken to prevent its continuance. At the meeting, on 4th March, at which my report was received, the Committee passed the following resolution:—*Resolved* "That the Town Clerk be desired to communicate with the owner of the Storey Arms, with a view to purchasing the same." In my opinion it is very desirable that steps should be taken to prevent the possibility of any further pollution from this source, and it is difficult to see how this can be accomplished unless the Water Works Authority obtain possession or control of the house in question.

Bacteriological Examination of Samples of Water from the Cardiff Public Supply.

Date received.	Description of Samples.	Number of Organisms per c.c.		Remarks.
		At 37° C.	At 20° C.	
1904				
Aug. 18th	Health Filters	3	2	Typical B. Coli. absent from 40 c.c.
" "	Rhubina Filters	524	1,192	Typical B. Coli. absent from 40 c.c. Atypical B. Coli. present in 10 c.c.
" "	Llanishen Reservoir ..	107	76	Typical B. Coli. present in 40 c.c. Atypical B. Coli. in 10 c.c.
" "	Lisvane Reservoir ..	24	120	Typical B. Coli. absent from 40 c.c. Atypical present in 10 c.c. and 40 c.c.
" "	Cantreff Reservoir ...	220	352	Atypical B. Coli. present in 2 c.c., 10 c.c., and 40 c.c.
8.30 p.m. Aug. 19th				Typical absent from 40 c.c.
Aug. 18th 8.30 p.m. Aug. 19th	Beacons Reservoir ..	96	308	Atypical B. Coli. present in 10 c.c. and 40 c.c.; absent from 2 c.c. Typical B. Coli. absent from 40 c.c.

REPORT OF ANALYSES OF SAMPLES OF WATER RECEIVED FROM CARDIFF CORPORATION.

ALL RESULTS ARE STATED IN PARTS PER 100,000.

Sample.	Date Collected.	Appearance (2 feet layer).	Reaction.	Hardness		Chlorine.	Ammonia.		Nitrates.	Oxygen absorbed 4 hours, 80° F.	Poisonous Metals.
				Total.	Permanent		Free.	Albumi- noid.			
Beacon's Reservoir ...	Sept. 13th, 1904.	Yellowish green. Rather turbid.	Faintly Alkaline	3.25°	3.1°	.8	.0030	.0116	Nil	.128	Nil
Cantreiff Reservoir ...	do.	do.	do.	3.2°	3.0°	.75	.0029	.0120	do.	.146	do.
Lisvane Reservoir ...	do.	Yellowish green. Fairly clear.	do.	3.3°	3.1°	.8	.0024	.0114	do.	.103	do.
Rhubina Filter ...	do.	Faintly yellowish green. Fairly clear	do.	4.1°	3.85°	.8	.0034	.0136	do.	.132	do.
Heath Filter ...	do.	Faintly yellowish green. Clear.	do.	4.1°	3.8°	.8	.0012	.0078	do.	.073	do.
Candy Filter ...	Sept. 10th	do.	do.	4.0°	—	.8	.0010	.0058	do.	.041	do.

MEAT INSPECTION.

The inspection of meat and other articles of food has [been carried on as usual during the year, with no changes in or addition to the staff of inspectors. As all the slaughtering within the limits of the Borough is done in the Public Abattoirs belonging to the Corporation, it is comparatively easy to exercise an efficient inspection of meat and to detect conditions which render it unfit for food before it is exposed for sale.

Under these circumstances when unsound meat is discovered and is voluntarily surrendered by the owner no proceedings are taken under sections 116 and 117 Public Health Act, 1875, and no order for destruction is in such cases made by the magistrates, but the meat is in every instance examined by the Medical Officer of Health, and destroyed under the supervision of the Inspector of the Sanitary Authority.

Mr. C. Mcir, M.R.C.V.S., Veterinary Surgeon to the Corporation, is the Chief Inspector of Meat, and by arrangement between the Health Committee and the Property and Markets Committee, Mr. N. Rees, the Superintendent of the Roath Abattoirs, and four of his Assistants are appointed to assist in the inspection of meat at the Public Slaughter Houses. A Special Inspector, Mr. McGregor, who was formerly a butcher, acts as Inspector of Foods in Shops.

In each case of suspected Tuberculosis or other disease, in any carcass, specimens of the morbid deposit are forwarded to the Public Health Laboratory for examination by Dr. Schölberg.

The following table gives the amount of meat in pounds found by the Medical Officer of Health to be unfit for food and destroyed either with the consent or by an order of a magistrate, in each year during the period 1895—1904.

Year.							Meat.
1895	..	..	..	..	..	..	4,523 lbs
1896	..	..	..	..	..	..	3,896 "
1897	..	..	..	..	..	..	10,824 "
1898	..	..	..	..	..	..	9,929 "
1899	..	..	..	..	..	..	14,205 "
1900	..	..	..	..	..	..	21,217 "
1901	..	..	..	..	..	..	33,696 "
1902	..	..	..	..	..	..	43,675 "
1903	..	..	..	..	..	..	41,710 "
1904	..	..	..	..	..	..	41,606 "

During the year 1904 the number of animals slaughtered in the Public Slaughter Houses in the Borough was as follows:—

						Roath Abattoir. Canton Abattoir.	
Beasts	..	..	..	..	..	18,898	2,944
Sheep	..	..	..	..	..	20,238	3,108
Calves	..	..	..	..	..	19,849	2,474
Pigs	..	..	..	..	..	15,565	2,628
Total						74,550	11,154

UN SOUND MEAT SEIZED OR SURRENDERED.

Place of Seizure.				No. of Animals.	Number Condemned by Magistrate.	Number Destroyed by arrangement with Owner.	Total Weight in lbs.
Roath Slaughter-house	...	...	...	80	1	79	26,173
Canton	..	..	..	8	—	8	3,420
TOTAL				88	1	87	29,593

The nature of the diseases detected in each case was as follows :—

Tuberculosis	44 beasts.	Pneumonia	1 beast.
"	20 pigs.	Dropsy	1 sheep.
"	1 sheep.	Pyæmia	5 pigs.
Injuries	12 sheep.	Rot	3 sheep.
Decomposed	1 calf.		

OTHER ARTICLES OF FOOD SEIZED OR SURRENDERED.

Place of Seizure	Description of Articles Seized.	Condemned by Magistrate	Destroyed by arrangement with owner.	Total Weight in lbs.
Ice House	5 Quarters of Beef .. ..	..	1	865
	2 Baskets of Meat .. ..	..	1	270
	4 Rabbits .. ..	..	1	8
	12 Fowls .. ..	..	1	36
	2 Turkeys .. ..	..	1	20
	8 Ox Tails .. ..	..	1	10
	87 Pieces of Beef .. ..	..	1	1,796
	4 Pieces of Pork .. ..	..	1	40
	4 Pieces of Mutton .. ..	..	1	50
	27 Hares .. ..	..	1	80
	1 Piece of Beef .. ..	..	1	91
	4 Quarters of Beef .. ..	..	1	190
	1 Shin Bone, Beef .. ..	..	1	12
	13 Barrels of Sausages .. ..	..	1	1,456
	14 Calves' Heads	}	1	110
	5 Shoulders of Veal			
	5 Legs of Mutton			
	47 Geese .. ..	..	1	564
Shop	Tripe .. ..	..	1	212
	Pigs' Feet .. ..	..	1	60
	Tongues .. ..	..	1	10
	8 Livers .. ..	..	1	38
	9 Shoulders of Bacon	1	..	112
	2 Boxes of Fruit .. ..	..	1	72
	67 Pieces of Beef .. ..	..	1	274
	Liver .. ..	..	1	13
	4 Pieces of Beef .. ..	..	1	136
	Fruit .. ..	..	1	18
	1 Liver	1	..	15
	5 Barrels of Grapes .. ..	..	1	250
Stores	6 Pieces of Beef .. ..	..	1	60
	29 Boxes of Fish .. ..	..	1	456
	4 Casks of Fish .. ..	..	1	336
	63 Boxes of Fish .. ..	..	1	1,042
	Fruit .. ..	..	1	900
	7 Boxes of Fish .. ..	..	1	784
Railway Station	22 Rabbits .. ..	..	1	66
	7 Casks of Fish .. ..	..	1	1,260
	1 Bag of Cockles .. ..	..	1	112
Market	1 Cow's Lung .. ..	..	1	14
	6 Pieces of Beef .. ..	..	1	100
	1 Fowl .. ..	..	1	5
	2 Pieces of Beef .. ..	..	1	30
Public Street	Dates	1	..	40
Total		3	39	12,013

INSPECTION OF FACTORIES AND WORKSHOPS.—The Factory and Workshop Act of 1901 makes considerable alterations in and additions to the duties hitherto falling upon Medical Officers of Health. Under Section 132 the Medical Officer of Health is required in his Annual Report, to deal specifically with the administration of the Act (so far as the matters under the charge of the Sanitary Authority are concerned), and to send a copy of this Report to the Secretary of State.

The work carried out during the year 1904 is shown in the subjoined tables.

Sec. 101 of the Act imposes important duties on Sanitary Authorities in regard to underground bakehouses. The Section provides that no underground bakehouse shall be used as such unless it was so used at the time of the passing of the Act, *i.e.*, August 17th, 1901, and further, that after the 1st January, 1904, no underground bakehouse (whenever established), may be used unless the Sanitary Authority is satisfied that it is suitable for the purpose in regard to construction, light, ventilation, and in all other respects, and have given it a certificate of suitability. A definition of the term "underground bakehouse" is given for the first time in this Act:—"A bakehouse is to be deemed an underground bakehouse if any room used for baking or for any process incidental thereto, is so situate that the surface of the floor is more than three feet below the surface of the footway of the adjoining street, or of the ground adjoining or nearest to the room." The question of the conditions under which these certificates should be granted is one of some difficulty, as no detailed instructions are given in the Act.

The matter is left entirely to the discretion of the Sanitary Authority, subject to the general principle that all underground bakehouses must be suitable as regards construction, ventilation, light, and in all other respects.

This section of the Act was apparently framed with the intention of encouraging the total abolition of underground bakehouses, and there can be no doubt that it would have this effect if Sanitary Authorities throughout the country were to adopt a high standard of suitability. On the other hand, as these certificates are not subject to periodical renewals the practical working of this part of the Act may, unless extreme care is taken, result in the prolonged use of unsuitable premises.

In Cardiff there were only 7 underground bakehouses at the time of the passing of the Act, four of these have since been abolished, as entirely unsuitable for the purpose.

Three certificates have been granted to the occupiers of underground premises after the completion of extensive structural alterations as required by the Sanitary Authority.

SHOP HOURS ACT, 1904.—This Act, which came into operation during the year, enables Local Authorities to make "Closing Orders," fixing the hours of closing on the several days of the week, either in the entire area of the district of the Local Authority or in any specified part thereof. The closing order may apply to all shops or to shops of any specified class.

The Act requires that the occupiers of shops desirous of promoting early closing should apply to the Local Authority, who may then take further steps in accordance with the provisions of the Act.

Several such applications have already been received, and the methods of administering the Act are now under the consideration of the Authority.

The following information is set forth on the form supplied by the Secretary of State, a copy of which was forwarded in January of the present year:—

1. —INSPECTION OF FACTORIES, WORKSHOPS, &c.

PREMISES.	NUMBER OF	
	Inspections.	Written Notices.
Factories	133	22
Workshops	1,603	223
Homeworkers' premises	179	14
Total	1,915	259

2.—DEFECTS FOUND.

PARTICULARS.	NUMBER OF DEFECTS.	
	Found.	Remedied.
Want of cleanliness	99	99
Want of ventilation	14	14
Overcrowding... ..	1	1
Other nuisances	106	106
Sanitary accommodations {	Insufficient	7
	Unsuitable or defective... ..	29
	Not separate for sexes	3
Total	259	259

3.—OTHER MATTERS.

CLASS.	NUMBER.
Failure to affix Abstract of the Factory and Workshop Act	23
Action taken under } Notified by H.M. Inspector	32
Factory Act (S. 5) } Reports (of action taken) sent to H.M. Inspectors	32
Underground Bakehouses in use during 1903	3
Certificates granted in 1903	2
" " in 1904	1
In use at the end of 1904	3
Homework :—	
Lists received	91
Addresses of outworkers received from other Authorities... ..	1
Cases of infectious disease notified in homeworkers' premises	12
Orders prohibiting homework in infected premises	12
Workshops on the Register at the end of 1904:—	
Bakehouses	179
Other	1,088
Total number of Workshops on Register	1,267

INSPECTION OF FACTORIES AND WORKSHOPS.

UNDER THE FACTORY AND WORKSHOP ACT, 1901, AND THE SHOP HOURS ACTS, 1892-95,
AND THE SEATS FOR SHOP ASSISTANTS ACT, 1899.

During the year a large number of workshops have been inspected. The results these inspections are given in the annexed tables :—

Nature of Workshops Inspected					Number on Register.	Number of Inspections.
Bakers	..	..	..	..	188	733
Sugar Boilers	..	..	..	..	5	7
Tailors	..	..	..	..	227	513
Dressmakers	..	..	..	..	258	142
Milliners	..	..	..	..	58	40
Corset Makers	..	..	..	..	1	1
Shirt and Hose Manufacturers	..	..	..	..	2	1
Bootmakers	..	..	..	..	92	44
Saddlers	..	..	..	..	13	26
Oilskin Manufacturers	..	..	..	..	4	6
Umbrella Makers	..	..	..	..	3	..
Laundries	..	..	..	..	23	73
Carpenters	..	..	..	..	27	25
Cabinet Makers	..	..	..	..	22	34
Upholsterers	..	..	..	..	22	17
Picture Frame Makers	..	..	..	..	10	1
Coopers	..	..	..	..	2	..
Pattern Makers	..	..	..	..	3	..
Bottlers	..	..	..	..	23	17
Packers	..	..	..	..	25	30
Tinsmiths	..	..	..	..	5	4
Blacksmiths	..	..	..	..	19	28
Plumbers	..	..	..	..	18	1
Engravers	..	..	..	..	2	..
Printers	..	..	..	..	21	49
Bookbinders	..	..	..	..	2	2
Paper Bag Makers	..	..	..	..	9	4
Box Makers	..	..	..	..	4	..
Watchmakers	..	..	..	..	8	4
Dentists	..	..	..	..	1	..
Blue Factory	..	..	..	..	1	..
Tent and Sail Makers	..	..	..	..	5	..
Basket Makers	..	..	..	..	2	4
Blind Makers	..	..	..	..	5	..
Mat Makers	..	..	..	..	1	1
Truss Makers	..	..	..	..	1	..
Bed Makers	..	..	..	..	2	1
Mattress Makers	..	..	..	..	2	..
Tobacco Pipe Makers	..	..	..	..	1	1
Musical Instrument Makers	..	..	..	..	6	3
Sewing Machine Makers	..	..	..	..	2	..
Perambulator Makers	..	..	..	..	1	..
Cycle Repairers	..	..	..	..	12	14
Electro Platers	..	..	..	..	2	5
Electricians	..	..	..	..	3	1
Cigar Manufacturers	..	..	..	..	1	1
Cigarette Manufacturers	..	..	..	..	5	1
Firewood Cutters	..	..	..	..	2	2
Cork Cutters	..	..	..	..	1	5

INSPECTION OF FACTORIES AND WORKSHOPS.—Continued.

Nature of Workshop Inspected.					Number on Register.	Number of Inspections.
Coach Builders	..	..	..	..	14	8
Engineers	..	..	..	..	30	16
Brass Workers	..	..	..	..	4	..
Wire Workers	..	..	..	..	1	..
File Works..	..	..	..	..	1	..
Scale Makers	..	..	..	..	3	16
Oil and Colour Works	..	..	..	..	2	..
Rope Manufacturers	..	..	..	..	2	..
Hairdressers	..	..	..	..	4	..
Photographers	..	..	..	..	5	..
India Rubber Works	..	..	..	..	2	..
Aerated Water Manufacturers	..	..	..	..	3	..
Stone Masons	..	..	..	..	4	..
Cement Works	..	..	..	..	1	3
Asphalte Works	..	..	..	..	3	2
Rag Sorters	..	..	..	..	4	13
Plaster Moulders	..	..	..	..	5	7
Biscuit Works	..	..	..	..	2	..
Flour Mills	..	..	..	..	4	1
Furrier	..	..	..	..	1	..
Tanner	..	..	..	..	1	..
Jam Factory	..	..	..	..	1	..
Boat Builder	..	..	..	..	5	3
Saw Mills	..	..	..	..	10	3
Brick and Tile Works	..	..	..	..	1	..
Patent Fuel Works	..	..	..	..	1	..
Chemical Works	..	..	..	..	1	..
Copper Works	..	..	..	..	1	..
Milk Sterilizers	..	..	..	..	1	1
Total					1,267	1,915

Notices of new workshops from Inspector of Factories under Factory and Workshop Act, 1901, Sec. 127, Sub. 3=87.

Notices from Inspector of Factories *re* sanitary defects in workshops, under Factory and Workshop Act, 1901, Sec. 5, Sub. 1=32.

Notices sent by Sanitary Authority to Inspector of Factories under Factory and Workshop Act, 1901, Sec. 133=23.

NUISANCES IN WORKSHOPS.

	Bakers.	Tailors.	Dressmakers.	Carpenters.	Electro Platers.	Cabinet Makers.	Milliners.	Printers.	Smiths.	Engineers.	Laundries.	Boilers.	Boothmakers.	Oilskin Manufacturers.	Scale Repairers.	Cycle Repairers.	Jewellers.	Packers.	Boat Builders.	Electricians.	Rag Sorters.	Cork Cutters.	Plaster Moulder.	Paper Bagmaker.
W.c. accommodation provided	...	1	...	...	...	...	...	2	2	1	...	1	...	...	1	...	...	1	...	...	1	...	...	...
Drains trapped and repaired	5	13	...	1	1	1	...	3	1	...	2	...	...	...	...	1	...	1	...	...	...	...	...	...
Flushing apparatus provided	1	13	...	...	...	...	...	2	1	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...
W.c.'s cleansed and repaired	1	9	...	...	...	...	...	3	1	...	1	...	1	...	...	...	...	1	...	...	...	...	...	...
Limewashing	84	7	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...
Workrooms ventilated	1	9	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	2	...	...	...	...	...	...
Paving, roofs, &c., repaired	10	12	1	...	...	...	...	3	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Workrooms cleansed	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Defective smoke stacks	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Accumulations	7	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Manure pits erected	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Workrooms overcrowded	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Disconnected from Stable	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Floors drained	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Animals so kept	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	111	72	2	1	1	9	1	15	7	1	16	3	2	1	1	1	1	6	1	1	2	1	2	1

SHOP HOURS ACT.

Nature of Shops Inspected.					Number of Inspections.	Employing Young Persons.	Employing Females	Seats Provided.
Drapers	..	..	..	..	85	78	82	82
Grocers	..	..	..	..	87	79	2	2
Butchers	..	..	..	..	68	53	..	..
Hairdressers and Tobacconists	..	..	..	..	81	62	56	56
Newsagents and Stationers	..	..	..	..	49	35	44	44
Fruiterers	..	..	..	..	40	30	20	20
Public Houses	..	..	..	..	37	6	37	37
Boot Dealers	..	..	..	..	47	38	33	33
Confectioners	..	..	..	..	52	27	45	45
Fancy Dealers	..	..	..	..	37	27	35	25
Outfitters	..	..	..	..	19	17	..	..
Ironmongers	..	..	..	..	23	22	1	1
Picture Dealers	..	..	..	..	3	1	..	..
China Dealers	..	..	..	..	4	3	1	1
Seedsmen	..	..	..	..	2	1	..	..
Cycle Dealers	..	..	..	..	2	2	..	..
Furniture Dealers	..	..	..	..	3	1	1	1
Chemists	..	..	..	..	5	3	..	..
Jewellers	..	..	..	..	4	4	..	..
Total					648	489	357	357

CARDIFF AND COUNTY PUBLIC HEALTH LABORATORY.

The following tables show the work which has been carried on in the Laboratory during each quarter of the year 1904.

The Laboratory forms part of the buildings of the University College, Cardiff, and is used for teaching purposes in connection with the Public Health and Bacteriological Departments of the College. It is maintained jointly by the Glamorgan County Council and by the Cardiff Corporation, and the Medical Officers of Health of these Authorities act as Directors of the Laboratory, and have the use of it for any bacteriological or chemical investigation connected with their administrative work. The Laboratory is under the immediate supervision of the Bacteriologist, H. A. Schölberg, M.B. (Lond.), D.P.H., and J. H. Sugden, M.Sc. (Vict.), F.I.C., acts as Assistant Bacteriologist and Chemist.

During the first quarter of 1904 the following were received and examined :—

308 Specimens ; 134 Waters ; 66 Effluents and Sewages.

SPECIMENS.

BACTERIOLOGICAL EXAMINATIONS :—

Diphtheria	..	..	..	..	..	..	77
Sputum for Tubercle Bacilli	..	..	..	..	..	..	100
Enteric Fever—Blood Serum Reactions	..	..	..	..	..	..	29
Pus	..	..	..	..	..	..	3
Pneumococcus	..	..	..	..	..	..	3
Gonococcus	..	..	..	..	..	..	2
Glanders	..	..	..	..	..	..	1
Anthrax	..	..	..	..	..	..	1
Plague	..	..	..	..	..	..	1
Diseased Meat	..	..	..	..	..	..	15
Urine for Tubercle Bacilli	..	..	..	..	..	..	1
Bacteriological Examination of Milk	..	..	..	..	..	..	5
„	„	„	„	„	„	„	2

PATHOLOGICAL AND CHEMICAL EXAMINATIONS :—

Growths	5
Urine—General Examination	19
Sugar Estimation	7
Albumen and Urea	3
Hydatid Fluid	1
Blood Examinations	5
Polarite	1
Insulating Compound	1
Samples of Air in Schools—Chemical Analyses	26

— 68

Total .. 308

SAMPLES OF WATER, SEWAGES, AND EFFLUENTS

WATERS :—

Bacteriological Analyses	65
Chemical Analyses	69

SEWAGE AND SEWAGE EFFLUENTS :—

Bacteriological Analyses	22
Chemical Analyses	29

TRADE EFFLUENTS :—

Chemical Analyses	15
---------------------------	----

— 200

SECOND QUARTER, 1904.—The following were received and examined :—

315 Specimens. 127 Waters. 43 Effluents and Sewages.

SPECIMENS.

BACTERIOLOGICAL EXAMINATIONS :—

Diphtheria	71
Sputum for Tubercle Bacilli	89
Enteric Fever—Blood Serum Reactions	34
Pus Examinations	6
Gonococcus	6
Pneumococcus	2
Diseased Meat	3
Soil (Bacteriological) Samples	10
Preserved Cockles	1
Anthrax (Human)	1
" (Bovine)	2
Glanders (Equine)	1
Fish	1
Milk (Bacteriological)	2
" (Tubercle)	2
Rats for Plague	7

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PATHOLOGICAL AND CHEMICAL EXAMINATIONS :—

Growths	9
Urine for General Examination	19
" " Sugar Estimation	10
" " Tubercle Bacilli	8
" " Uric Acid	1
" " Camidge Test	2
Stomach Contents	3
Blood Examinations	11
Soil Samples (Chemical)	10
Preserved Cockles (Chemical)	1
Milk (Chemical)	1
Cream (Chemical)	1
Faeces (Chemical)	1

— 77

SAMPLES OF WATER, SEWAGE, AND EFFLUENTS.

WATERS :—

Bacteriological Analyses	..	..	..	..	..	75
Chemical Analyses	..	..	..	..	..	52

SEWAGE AND SEWAGE EFFLUENTS :—

Bacteriological Analyses	..	..	..	..	..	7
Chemical Analyses	..	..	..	..	..	17

TRADE EFFLUENTS :—

Chemical Analyses	..	..	..	..	..	19
—						160

THIRD QUARTER, 1904.—The following were received and examined :—

Specimens 272. Waters 144. Effluents and Sewages 78.

SPECIMENS.

BACTERIOLOGICAL EXAMINATIONS :—

Diphtheria	..	..	..	..	..	77
Sputum for Tubercle Bacilli	..	..	..	..	..	75
Enteric Fever—Blood Serum Reactions	..	..	..	..	..	45
Pus Examinations	..	..	..	..	..	3
Gonococcus	..	..	..	..	..	2
Diseased Meat	..	..	..	..	..	9
Anthrax (Bovine)	..	..	..	..	..	1
Urine for Typhoid Bacilli	..	..	..	..	..	1
„ „ Tubercle Bacilli	..	..	..	..	..	1
Silk Thread for Bacteria (Cardiff Infirmary)	..	..	..	..	..	1
—						215

PATHOLOGICAL AND CHEMICAL EXAMINATIONS :—

Growths	..	..	..	..	..	9
Urines for General Examination	..	..	..	..	..	8
„ „ Microscopic Examination	..	..	..	..	..	8
„ „ Sugar Estimation	..	..	..	..	..	3
Blood Examinations	..	..	..	..	..	20
Stomach Contents	..	..	..	..	..	1
Spermatozoa	..	..	..	..	..	1
Cream (Chemical)	..	..	..	..	..	1
Car Cleaning Oil (Electrical Department)	..	..	..	..	..	4
Water for Plumbo-solvent Action	..	..	..	..	..	1
Water for Lime	..	..	..	..	..	1
—						57
—						272

SAMPLES OF WATER, SEWAGE, AND EFFLUENTS.

WATERS :—

Bacteriological Examinations	..	..	..	..	..	94
Chemical Analyses	..	..	..	..	..	50
—						144

SEWAGE AND SEWAGE EFFLUENTS :—

Bacteriological Examinations	..	..	..	..	..	26
Chemical Analyses	..	..	..	..	..	26

TRADE EFFLUENTS :—

Chemical Analyses	..	..	..	..	..	26
—						78

FOURTH QUARTER, 1904.—The following were received and examined :—

Specimens 456. Waters 113. Effluents and Sewages 62.

(SPECIMENS.

BACTERIOLOGICAL EXAMINATIONS :—

Diphtheria	189
Sputum for Tubercle Bacilli	76
Enteric Fever—Blood Serum Reactions	89
Pus Examinations	5
Gonococcus	5
Pneumococcus	1
Ringworm	2
Diseased Meat	6
Milk	2
Disinfectant Action	1
	— 376

PATHOLOGICAL AND CHEMICAL EXAMINATIONS :—

Growths	9
Urine for General Examination	16
" " Sugar Estimation	5
" " Urea Estimation	2
" " Albumen Estimation	2
Stomach Contents	1
Strychnine Examination	2
Blood Examinations	12
Waters for Plumbo-solvent Action	22
Waters for Chlorinated Lime Estimation	3
Oils	4
Air Examinations	2
	— 80
	—
	453

SAMPLES OF WATER, SEWAGE, AND EFFLUENTS.

WATERS :—

Bacteriological Examinations	113
Chemical Examinations	55

SEWAGE AND SEWAGE EFFLUENTS :—

Bacteriological Examinations	13
Chemical Examinations	26

TRADE EFFLUENTS :—

Chemical Examinations	23
	— 62
	—
	230

During the year 1904 the Laboratory has been utilised for the usual Public Health purposes. Monthly examinations of the Public Water Supply have been carried out, as well as numerous analyses of samples of water from vessels calling at the Port of Cardiff. Many of the latter have been condemned as unfit for drinking purposes, while for the former, it has been shown that, though the filtered water may be considered satisfactory, a potential danger exists in the liability to pollution of the water at the Beacons Reservoir from the proximity of the Storey Arms Inn. It is to be hoped that means will be taken to remedy deficiencies which, when once dealt with, should make the Cardiff Water Supply one of the best in the kingdom.

During the year a number of samples were examined to test the efficiency of the Candy Polarite Filter. The conclusion to be drawn from the experiments carried out is, that this method of filtration is a useful auxiliary, but cannot, I think, replace sand filtration.

Another subject which occupied the attention of the Laboratory is that dealing with the purification of "Made Soils." The result of this investigation is inconclusive. Variations of the degree of purification occur in soils of different ages, which do not correspond to an improvement that the corresponding lapse of time would suggest. This variability is probably due to the different degrees of pollution present in refuse dealt with from week to week. The highest degree of chemical purity has been recorded in a sample nine years old.

MIDWIVES ACT, 1902.

This Act came into operation on the 1st April, 1903, when the Council of the County Borough of Cardiff was constituted the Local Supervising Authority within the Borough. Section 8 of the Act provides that "The Local Supervising Authority may delegate, with or without any restrictions or conditions as they may think fit, any powers or duties conferred or imposed upon them by or in pursuance of this Act, to a Committee appointed by them, and consisting either wholly or partly of members of the Council, and the provisions of Sub-sections 1 and 2 of Section 82 of the Local Government Act, 1888, shall apply to every Committee appointed under this section and to every Council appointing the same, and women shall be eligible to serve on any such Committees."

Under the powers of this Section the Local Supervising Authority delegated to the Health and Port Sanitary Committee all the powers and duties conferred or imposed upon them, and appointed the Medical Officer of Health Executive Officer in accordance with the suggestion contained in the Memorandum of the Central Midwives Board.

The first duty which devolved upon the Authority was to give notice of the effect of the Act, so far as practicable, to persons at present using the title of midwife. This was done by advertisement in the local newspapers, by large printed notices and by small handbills left at the residence of the midwife.

The Midwives Act confers upon the Local Supervising Authority extensive and responsible duties in connection with the supervision of all midwives certified under the Act, and practising within the area of their jurisdiction. These duties are as follows:—

- (1) To exercise general supervision over all midwives practising within their area in accordance with the rules laid down under the Act.
- (2) To investigate charges of mal-practice, negligence, or misconduct on the part of any midwife practising within their area, and, should a *prima facie* case be established, to report the same to the Central Midwives Board.
- (3) To suspend any midwife from practice, in accordance with the rules under the Act, if such suspension appears necessary in order to prevent the spread of infection.
- (4) To report at once to the Central Midwives Board the name of any midwife practising in the area convicted of an offence.
- (5) During the month of January of each year to supply the Secretary of the Central Midwives Board with the names and addresses of all midwives who during the preceding year have notified their intention to practise within their area, and to keep a current copy of the roll of midwives, accessible at all reasonable times for public inspection.
- (6) To report at once to the Central Midwives Board the death of any midwife or any change in the name or address of any midwife in their area, so that the necessary alteration may be made in the roll.

In addition to the above powers and duties of the Local Supervising Authority, they are authorised to prosecute any offences under the Act punishable on summary conviction.

From the current copy of the Roll of midwives kept by the Local Supervising Authority, it appears that within their area, *i.e.*, the Borough of Cardiff, there are 96 midwives certified under the Act. Of these, 83 were certified on the ground of having been in *bona-fide* practice as a midwife for at least one year prior to the 31st July, 1902; 12 on the ground of holding the Certificate in Midwifery of the Obstetrical Society of London, and one of holding the Certificate of the Rotunda Hospital, Dublin.

On giving notice to the Supervising Authority of her intention to practise within the area, each midwife is supplied with a copy of the Rules of the Central Midwives Board.

Visits are paid from time to time by the Woman Inspector appointed for this purpose, in order to explain, when necessary, the rules, and to enforce compliance therewith.

The object of the Act is to secure the better training and supervision of midwives by the establishment of a system of certification and enrolment of women qualified to act in that capacity. The Act provides that from and after the 1st April, 1905, no woman may call herself a midwife unless she is certified under the Act, and that after the 1st April, 1910, no woman shall habitually, and for gain, attend women in child-birth, otherwise than under the direction of a qualified medical practitioner, unless she is so certified. The Act also provides for the certification of existing midwives in the manner already described, provided they apply for certification not later than the 1st April, 1905. After that date, certification can only be obtained after a course of study, and by passing an examination in accordance with the Rules of the Central Midwives Board. The course of training before admission to the Board's Examination requires attendance at not fewer than twenty labours, and the nursing of twenty lying-in women, and the attendance of a sufficient course of instruction extending over a period of not less than three months. By the prompt and efficient action of the Authorities of the University College of South Wales and Monmouthshire, in Cardiff, a comprehensive course of training and instruction has been established, and Dr. E. Maclean, the Lecturer in Midwifery at the College, has been appointed to carry this out. The Councils of the County of Glamorgan and the County Borough of Cardiff have contributed through their Education Committees to the expenses of this course of instruction, and have the privilege of nominating a certain number of women each term, for free studentships in midwifery. During the year 1904, 44 women from the Borough of Cardiff have attended the course.

The Committee of the Queen's Nursing Institute have recently established a Maternity Department, and are taking pupils for the practical training of midwives. Both the theoretical training at the College, and the practical course in connection with the Nursing Institute, have been recognised by the Central Midwives Board, as qualifying for admission to the Board's Examinations.

THE MEDICAL SUPERVISION AND SANITARY INSPECTION OF SCHOOLS.

The Education Act of 1902 has necessarily brought to the front the question of the sanitation of Public Elementary Schools, as by its operation these schools have been placed under the control of the Local Education Authority, which in this and many other districts is practically the same body as the Local Sanitary Authority. At the request of the Education Committee your Borough Engineer and Medical Officer of Health made an inspection of all the Non-provided Schools in the Borough (nineteen in number), and presented reports upon the sanitary condition of these schools to the Committee. It was subsequently resolved that the managers should be called upon to make such alterations as were necessary in order to place their schools in a more satisfactory state as regards sanitation and general construction.

In some cases these alterations have already been made, and in others the defects are being remedied and improvements are being carried out. The inspection of these schools made it abundantly clear that, with respect to the old schools, there has been a quite unnecessary disregard for the health of the teachers and scholars, in their construction, more particularly in connection with the arrangements for ventilation, warming, and drainage. It was evident also that some of the more inexperienced teachers did not sufficiently appreciate the use of the sanitary appliances already provided, and that the caretakers were for the most part still more in need of instruction in the use of even the most simple of these appliances.

The changes in administration brought about by the Education Act afford, therefore, a favourable opportunity for organizing a systematic and effective method of supervising the sanitation of schools, and of promoting the health of the scholars. Throughout the country, the necessity for some action in this direction has been felt, and attempts are being made by the new Education Authorities to deal with this somewhat difficult and complicated problem. The methods adopted have been generally on the following lines :—

- (1) The provision of instruction of school teachers in the laws of health, and, in school hygiene.
- (2) The better attention to the details of sanitation in the construction of new schools, especially with respect to the ventilation, warming and drainage of the school buildings.
- (3) The maintenance of the existing schools in a good sanitary condition.
- (4) The systematic medical inspection of schools, with a view to the promotion of the health and physical development of the scholars, and to the prevention of the spread of infectious and other diseases in schools, and to securing special attention to those scholars showing signs of mental and physical weakness or abnormality.

Firstly.—In this District provision has already been made for the instruction of school teachers in hygiene. The University College of South Wales and Monmouthshire has established a very complete course on this subject as a preparation for candidates for the certificate in hygiene given by the Board of Education; this being one of the optional subjects which may be taken by the candidates for the Board's qualifying certificate for school teachers.

Secondly.—It is, of course, essential that due attention should be given locally, to the details of sanitation in the construction of new schools. These matters are, to some extent, provided for in the Rules issued by the Board of Education in connection with the planning and fitting up of new schools.

In the preparatory note to these Rules it is stated that "They are intended to show Education Authorities what the Board deem essential in the construction and design of school buildings, but in other respects they are not meant to restrict liberty of treatment." From this it will be seen that the Local Education Authority will have a wide discretionary power with respect to the constructive details of school buildings.

Thirdly.—The duty of maintaining the existing schools in a good sanitary condition devolves, almost entirely, upon the Local Authority, and is a matter of the highest importance, involving as it does the health and physical welfare of enormous numbers of children, at a period of life when they are most susceptible to the influence of favourable or unfavourable surroundings.

The responsibility in this direction applies more particularly to the older schools in the District, in which the appliances are more or less imperfect, and in which the greatest care and attention is required on the part of the teachers and caretakers in order to keep the school and class rooms, and sanitary appliances in a wholesome condition. The want of due attention to these matters invariably leads to illness or discomfort of the scholars, and to unnecessary interference with school work. Some organized system of sanitary supervision of school buildings should, therefore, be adopted by the Education Authority.

Fourthly.—A routine medical inspection of all the schools in the District should be carried out under the direction of the Local Education Authority, having in view, principally, the following objects:—

- (a) To ascertain and to certify as to the cause of absence from school on account of illness of pupils or teachers.
- (b) To confer with the head teachers at the schools on the general state of health of the teachers and scholars, and particularly as to the condition of children considered to be physically or mentally weak, and to report to the Local Education Authority the result of such conference.

- (c) To take the necessary steps for excluding from school attendance children suffering from any communicable disease.
- (d) To examine all children known to have recently been in contact with a person, or persons, suffering from an infectious disease.
- (e) To examine and report upon, to the Local Education Authority, the sanitary condition of all schools under their control.

INSPECTION OF COMMON LODGING HOUSES.—These houses are regulated by the provisions of the Public Health Act, 1875. Section 77 requires all Common Lodging Houses to be registered, and Section 80 empowers the Sanitary Authority to make Bye-Laws.

- (1) For fixing, and from time to time varying, the number of lodgers who may be received into a Common Lodging House, and for the separation of the sexes therein.
- (2) For promoting cleanliness and ventilation in such houses.
- (3) For the giving of notices and the taking precautions in the case of any infectious diseases; and
- (4) Generally for the well ordering of such houses.

In the year 1891 your Authority adopted Bye-Laws which correspond closely with the "Model Bye-Laws" of the Local Government Board.

COMMON LODGING HOUSES.

	Inspection of Common Lodging Houses.							Number.
Total number on register	25
Registered rooms	108
Number of persons certified to accommodate	390
Day inspections	2,375
Night inspections	112
W.c.'s cleansed and repaired	41
Drains trapped and repaired	39
Special ventilation provided to rooms	68
Limewashed	61
Repaired	45
Accumulations removed	37

SEAMEN'S LODGING HOUSES.

Total number of applications	..	..	..	..	..	..	..	655
" " persons licensed	..	..	..	..	..	..	..	124
" " houses, the occupiers of which have been licensed	..	..	..	..	..	..	..	124
Maximum number of lodgers authorised to be received in the above	..	..	..	..	..	..	..	1,292
Number of day inspections	..	..	..	..	..	..	..	2,612
" night inspections	..	..	..	..	..	..	..	274
" houses in which sanitary improvements have been effected	..	..	..	..	..	..	..	46
Nature of sanitary defects—								
W.c.'s supplied with water	..	..	..	..	..	..	..	15
Defective water closets	..	..	..	..	..	..	..	46
Defective drains	..	..	..	..	..	..	..	51
Defective paving in yards	..	..	..	..	..	..	..	53
Defective bedroom ventilation	..	..	..	..	..	..	..	58
Houses with walls and roofs out of repair	..	..	..	..	..	..	..	45
Houses limewashed	..	..	..	..	..	..	..	368
Accumulations of refuse	..	..	..	..	..	..	..	54
Infectious disease discovered	..	..	..	..	..	..	..	4
Legal proceedings taken	..	..	..	..	..	..	..	8

SALE OF FOOD AND DRUGS ACT.

The following table shows the number of samples of food and drugs submitted during the year 1904 to the Public Analyst, Mr. Thomas Hughes, F.I.C., F.C.S., Cardiff:—

Samples obtained,	Number of Samples.	Number of Genuine Samples	Number of Samples Adulterated.	Fines.
Milk	413	401	12	£2, £5, £2, £3, £2, 5/-, 5/-, £5, £5. 3 cases fined Costs.
Beer	16	16	—	
Butter	36	36	—	
Corn Flour	10	10	—	
Irish Whisky	2	2	—	
Scotch Whisky	2	2	—	
Rum	2	2	—	
Gin	2	2	—	
Flour	12	12	—	
Coffee	7	7	—	
Demerara Sugar	8	8	—	
Brandy	2	2	—	
Rice	2	2	—	
Baking Powder	2	2	—	
Pepper	4	4	—	
Arrowroot	1	1	—	
Sago	1	1	—	
Tea	2	2	—	
Margarine	33	33	—	
Sweets	8	8	—	
Bread	5	5	—	
Ginger	5	5	—	
Golden Syrup	2	2	—	
Lard	2	2	—	
Cheese	8	8	—	
Marmalade	2	2	—	
Jam	2	2	—	
Vinegar	7	7	—	
Condensed Milk	1	1	—	
Skimmed Milk	1	1	—	
Total	600	588	12	£24 10 0 and Costs.

VITAL STATISTICS, POPULATION, &c.—The population of the Borough, according to the Census enumeration of April, 1901, amounted to 164,333 persons, being an increase of 27·5 per cent since the Census of 1891; the rate of increase being considerably less than that of the preceding inter-censal period, which slightly exceeded 55 per cent. The population of the Borough, estimated in accordance with the method adopted by the Registrar General, to the middle of the year 1904, was 176,313, and the birth and mortality rates contained in this Report have been calculated on the basis of this estimate. This method of estimating the population of towns at the middle of each year since the last preceding Census is based on the assumption that the same rate of annual increase has continued as during the decennial period ending at the time of that Census. The estimates of population obtained by this method are, of course, only approximately true and they generally exhibit considerable divergence from the actual truth in the years most remote from the Census. It is probable, however, that the annual estimates of populations in Cardiff, since 1901, will be much more accurate than those immediately preceding that year, as they are calculated on the more moderate rate of increase of 27·5 per cent. The extent of this error, and its effect on the calculated rate of mortality, are shown in table XII., giving corrected death rates for each year during the inter-censal period 1892-1900, based on the revised estimates made since the publication of the Census of 1901.

In order to check, to some extent, the accuracy of the official estimate of the population, a local enumeration, based on the number of inhabited houses, is made annually in June, under the superintendence of the Medical Officer of Health. This number is multiplied by 5·8, the average number of inmates per house, as given at the last Census. The results of this enumeration made in June 1904, are given in table I.

The following table gives the population of Cardiff, at various ages, estimated to the middle of 1904 :—

TABLE VII.

Ages.	Persons.	Males.	Females.
All ages	176,313	87,554	88,759
Under 5 years... ..	22,218	10,951	11,267
5 and under 10 years ...	20,316	10,165	10,151
10 " 15 " "	18,253	9,101	9,152
15 " 20 " "	17,408	8,418	8,990
20 " 25 " "	17,449	8,200	9,249
25 " 30 " "	16,135	7,950	8,185
30 " 35 " "	14,066	7,110	6,956
35 " 40 " "	12,540	6,411	6,129
40 " 45 " "	10,241	5,403	4,838
45 " 50 " "	7,903	4,148	3,755
50 " 55 " "	6,383	3,273	3,110
55 " 60 " "	4,652	2,357	2,295
60 " 65 " "	3,546	1,735	1,811
65 " 70 " "	2,388	1,084	1,304
70 " 75 " "	1,536	706	830
75 " 80 " "	810	352	458
80 years and upwards ...	469	190	279

MARRIAGES.—The total number of marriages registered during the year 1904 was 1,563, corresponding to a rate of 17·7 persons married per 1,000 living.

The return of the number of marriages in the Borough of Cardiff during the years 1895-1904, together with the rate of persons married per 1,000 of the population, is given below :—

TABLE VIII.

Year.	Number of Marriages.	Rate per 1,000 persons living
1895	1,271	17·7
1896	1,721	23·4
1897	1,687	22·4
1898	1,525	19·8
1899	1,719	21·8
1900	1,706	21·1
1901	1,641	19·8
1902	1,677	19·8
1903	1,668	19·3
1904	1,563	17·7

BIRTHS.—During the year 1904 the births registered in the Borough were 5,208, of these 2,647 were males and 2,561 were females. The number of births corresponded to an annual birth-rate of 29·5 per 1,000 persons living, as compared with 27·9, the birth-rate in England and Wales, and with 29·1 the rate in the 76 large towns, for the same period.

The average annual birth-rate, in Cardiff, during the ten years 1894—1903 was 34·0.

TABLE IX.

Shows the number of legitimate and illegitimate births, male and female, and the number of deaths amongst children under one year of age in each Ward, and in the Union Workhouse, during the year 1904:—

WARDS.					Legitimate.		Illegitimate.		Total.		Total.	Deaths Under one Year.
					M.	F.	M.	F.	M.	F.		
Central	Ward	..	..	..	106	120	3	2	109	122	231	38
South	"	..	..	..	148	123	3	2	151	125	276	48
Cathays	"	..	..	..	331	299	6	5	337	304	641	71
Park	"	..	..	..	275	277	6	4	281	281	562	68
Adamsdown	"	..	..	..	219	201	4	3	223	204	427	61
Riverside	"	..	..	..	220	203	2	3	222	206	428	58
Canton	"	..	..	..	337	346	7	7	344	353	697	92
Road	"	..	..	..	207	224	8	6	215	230	445	55
Grangetown	"	..	..	..	405	370	6	5	411	375	786	134
Splott	"	..	..	..	307	307	3	2	310	309	619	101
Union Workhouse	..	..	..	..	8	14	36	38	44	52	96	25
TOTAL					2,563	2,484	84	77	2,647	2,561	5,208	751

TABLE X.

Shows the birth-rate in Cardiff compared with that in some of the large towns during the 10 years ending 1904:—

LARGE TOWNS.					Annual Birth-rate per 1,000 living.									
					1895	1896	1897	1898	1899	1900	1901	1902	1903	1904
London	...	...	...	...	30.5	30.2	30.0	29.5	29.4	28.6	29.0	28.5	28.5	28.0
West Ham	...	...	...	...	34.3	32.6	32.2	30.6	29.7	28.6	35.2	34.1	33.7	32.1
Croydon	...	...	...	...	25.3	25.1	25.0	25.4	25.1	24.9	26.4	26.1	26.3	26.1
Brighton	...	...	...	...	25.6	24.7	24.7	24.8	24.9	23.6	24.2	24.3	24.3	23.5
Portsmouth	...	...	...	...	27.9	27.6	26.9	26.7	26.2	25.7	27.9	27.1	27.9	28.2
Plymouth	...	...	...	...	28.7	28.8	28.5	29.7	29.8	28.4	26.8	27.0	25.5	25.3
Bristol	...	...	...	...	28.9	27.6	27.8	28.6	29.2	27.8	27.0	27.5	27.4	26.0
Swansea	...	...	...	...	33.4	30.5	29.4	28.9	27.7	26.7	30.1	31.1	32.0	30.5
Wolverhampton	...	...	...	...	35.4	34.4	35.1	35.8	35.3	33.5	31.7	31.6	30.5	29.8
Birmingham	...	...	...	...	32.4	32.6	33.3	34.0	34.3	32.7	32.1	31.8	31.8	31.5
Norwich	...	...	...	...	31.8	30.8	30.5	29.9	29.1	28.4	28.4	27.9	27.9	27.6
Leicester	...	...	...	...	30.8	30.8	30.6	29.6	29.4	28.2	29.0	29.1	27.4	26.6
Nottingham	...	...	...	...	29.7	28.9	28.9	28.9	28.9	27.7	28.4	27.8	28.3	27.8
Derby	...	...	...	...	29.1	28.0	27.1	27.4	28.1	26.9	27.8	28.0	27.0	27.2
Birkenhead	...	...	...	...	30.7	31.7	31.6	30.4	29.9	29.0	29.0	32.7	30.8	33.1
Liverpool	...	...	...	...	36.9	34.9	35.3	35.2	35.6	36.0	32.1	22.5	33.4	33.5
Bolton	...	...	...	...	32.9	31.3	32.5	30.9	29.9	34.7	27.5	27.2	27.0	26.9
Manchester	...	...	...	...	33.7	33.0	33.2	32.7	32.6	32.3	29.1	32.8	32.1	31.3
Salford	...	...	...	...	35.9	34.9	35.1	34.7	33.9	33.1	29.2	33.8	32.2	31.7
Oldham	...	...	...	...	27.5	27.2	26.1	25.3	24.8	24.1	24.6	26.1	25.6	24.9
Burnley	...	...	...	...	32.1	31.0	29.8	27.1	25.3	25.3	27.4	29.1	27.2	27.2
Blackburn	...	...	...	...	30.6	27.7	27.7	27.1	27.0	25.1	26.5	25.6	25.1	23.5
Preston	...	...	...	...	33.4	32.6	31.9	31.0	30.1	29.0	30.4	28.9	30.4	28.2
Huddersfield	...	...	...	...	21.7	20.5	23.4	22.5	23.0	22.8	22.7	24.4	23.8	23.7
Halifax	...	...	...	...	23.4	24.3	22.5	22.9	23.1	23.1	22.5	21.3	21.1	20.1
Bradford	...	...	...	...	26.1	25.5	24.6	24.0	23.4	23.1	23.1	23.0	23.3	22.0
Leeds	...	...	...	...	31.6	30.7	31.6	31.2	30.6	30.4	30.0	29.8	29.4	28.0
Sheffield	...	...	...	...	34.9	34.0	34.4	33.9	34.6	34.2	33.0	33.4	33.2	31.9
Hull	...	...	...	...	34.2	31.9	33.3	33.4	34.3	32.9	33.0	32.1	31.3	30.8
Sunderland	...	...	...	...	35.1	34.2	34.6	35.4	35.7	35.8	35.5	35.9	35.1	34.4
Gateshead	...	...	...	...	34.6	35.8	35.8	35.5	36.6	36.3	36.8	36.7	35.8	34.4
Newcastle-on-Tyne	...	...	...	...	31.2	31.1	31.3	31.7	31.4	30.4	32.1	32.6	31.1	30.5
Cardiff	..	..	..	..	37.1	38.1	35.1	35.9	33.7	35.2	31.4	31.2	30.5	29.5

DEATHS.—The deaths recorded during the year 1904 amounted to 2,695, as compared with 2,675, the average number of deaths for the 10 years 1894—1903. So far as it has been possible to ascertain, this number includes the deaths of persons resident in Cardiff, and who died elsewhere, but is exclusive of those brought into the district from outside and dying in Public Institutions within the Borough.

These deaths were equal to an annual death rate of 15·2 per 1,000 persons living, as compared with 17·1, the average annual death rate for the 10 years 1894—1903. The natural increase in the population, or the excess of births over deaths, during the year amounted to 2,504. The death rate in 1904 was, with the exception of that in 1903, the lowest on record since the vital statistics of the Borough were first published in 1847.

According to the Returns of the Registrar General, the death rate in the year 1904, for the whole of England and Wales, amounted to 16·2 per 1,000. The average death rate for the same year in the 76 large towns was 17·2, ranging from 8·43 in Hornsey, 11·95 in Walthamstow, 11·02 in Kings Norton, to 21·00 in Salford, 21·2 in Hanley, and 21·90 in Liverpool.

In the first quarter of the year the number of deaths registered in the Borough of Cardiff, at all ages, from all causes, was 774, corresponding to an annual death rate of 17·5 per 1,000 persons living, as compared with 18·7 the rate in the 76 large towns. Amongst these towns the death rate for the first quarter ranged from 8·8 per 1,000 in Hornsey, 11·2 in Walthamstow to 23·2 in Wigan, and 23·8 in Warrington, and 26·6 in Merthyr Tydfil.

Eighty-five deaths in Cardiff were ascribed to the principal infectious diseases, being equal to an annual death-rate of 1·9 per 1,000 for the first quarter of the year. The average death-rate from these diseases in the 76 large towns was 1·6 per 1,000, ranging from 0·08 in Burton-on-Trent, to 4·41 in Warrington. The deaths from infectious diseases during the first quarter included 29 from measles, 22 from whooping cough, 16 from diphtheria, 9 from scarlet fever, and 9 from diarrhoea.

The infant mortality in the first quarter, as measured by the proportion of deaths under one year of age to registered births, was equal to 156 per 1,000, as compared with 145, the average in the 76 large towns.

In the second quarter of the year the number of deaths registered was 585, corresponding to an annual death rate of 13·2 per 1,000, as compared with 15·3 in the 76 large towns. Amongst these towns the death rate for the first quarter ranged from 8·6 per 1,000 in Willesden to 20·0 in Manchester. Sixty-one deaths were ascribed to the principal infectious diseases, being equal to an annual death rate of 1·3 per 1,000 for the first quarter. The average death rate from these diseases in the 76 large towns was 1·7 per 1,000 for the same period, ranging from 0·06 in Hastings to 5·01 in Warrington. The deaths from infectious diseases during the second quarter in Cardiff included 19 from measles, 18 from whooping cough, 7 from scarlet fever, from diphtheria, and from diarrhoea, 2 from fever, and 1 from small-pox. The proportion of deaths under one year of age to 1,000 births was 111, as compared with 120 the average proportion in the 76 large towns.

In the third quarter of the year the number of deaths registered was 626, corresponding to an annual death-rate of 14·2 per 1,000, as compared with 17·5, the rate in the 76 large towns. Amongst these towns the death rate for the third quarter ranged from 7·7 in Hornsey to 26·9 in Liverpool.

One hundred and thirty-six deaths were ascribed to the principal infectious diseases, being equal to an annual death rate of 3·0 per 1,000. The average death rate from these diseases in the 76 large towns was 5·0 per 1,000 for the third quarter.

The deaths from infectious diseases during this quarter, in Cardiff, included 105 from diarrhoea, 13 from whooping cough, 5 from measles and from scarlet fever, and 4 from Diphtheria and from fever. The proportion of deaths under one year of age to 1,000 births was 177, as compared with 229 the average proportion in the 76 large towns.

In the fourth quarter of the year the number of deaths registered was 623, corresponding to an annual death rate of 14·1 per 1,000, as compared with 17·4 the rate in the 76 large towns. Amongst these towns the death-rate for the fourth quarter ranged from 8·4 per 1,000 in Hornsey, to 23·0 in Hanley.

Thirty-eight deaths were ascribed to the principal infectious diseases, being equal to an annual death rate of 0.8 per 1,000. The average death rate from these diseases in the 76 large towns was 1.5 per 1,000 for the fourth quarter. The deaths from infectious diseases during this quarter, in Cardiff, included 11 from measles, 8 from whooping cough and from diarrhoea, 4 from scarlet fever and diphtheria, and 3 from fever. The proportion of deaths under one year of age to 1,000 births was 130, as compared with 147 the average proportion in the 76 large towns.

From the foregoing remarks it will be seen that the general death rate for the whole town was unusually low, being 1.9 per 1,000 below the average in the preceding 10 years, and 2.0 per 1,000 below the average in the 76 large towns in the year 1904. In each quarter of the year also the general death rate was below the average rate in the large towns.

The deaths from the principal infectious diseases in the year 1904 corresponded to a death rate of 0.84 in Cardiff, as compared with 1.57 the average rate in the 76 large towns for the same period. With the exception of the first quarter of the year the death rate from these diseases was below the average in the 76 large towns. This rate was raised in the first quarter by the extensive prevalence, in Cardiff, of measles and whooping cough in young children, amongst whom the fatality was great.

TABLE XI.

Annual death-rate per 1,000 in some of the large towns in England and Wales for the 10 years 1895-1904 inclusive:—

LARGE TOWNS.	Annual Death-rate per 1,000 living.									
	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.
London	19.8	18.6	18.2	18.7	19.8	18.8	17.6	17.7	15.7	16.1
West Ham	17.9	16.1	15.7	15.4	16.7	15.9	18.0	17.1	15.3	16.7
Croydon	14.5	14.2	13.1	13.9	15.0	14.6	12.9	14.0	11.8	13.8
Brighton	18.9	16.1	15.1	16.9	19.0	17.8	16.5	15.8	14.3	16.6
Portsmouth	17.8	16.6	16.2	16.3	19.7	17.3	17.9	16.8	14.7	16.8
Plymouth	20.1	19.6	19.0	19.5	21.7	20.8	17.9	17.0	16.5	18.7
Bristol	18.1	16.9	17.2	17.2	18.2	16.7	16.0	17.4	14.3	15.4
Swansea	18.3	16.8	15.8	18.6	18.1	17.1	18.6	16.1	18.6	17.7
Wolverhampton	24.4	20.0	22.5	21.3	21.8	22.5	16.9	16.4	15.5	14.6
Birmingham	20.3	20.8	21.6	20.0	20.8	21.5	20.5	18.6	17.8	19.3
Norwich	19.3	17.4	18.8	19.0	17.3	17.6	18.7	16.7	15.2	18.2
Leicester	17.2	16.7	17.7	16.9	17.7	17.4	15.9	14.9	14.2	14.5
Nottingham	19.0	17.5	18.8	17.7	20.0	19.1	18.5	16.9	16.9	17.5
Derby	16.7	15.7	16.0	16.8	16.9	17.5	15.2	13.9	13.6	15.1
Birkenhead	19.5	19.2	18.3	17.4	19.2	16.8	18.7	17.7	16.8	19.8
Liverpool	28.8	22.7	24.4	24.0	26.4	25.7	22.3	22.5	20.5	21.9
Bolton	24.0	20.7	22.0	19.4	19.9	19.5	18.2	16.9	17.5	16.9
Manchester	25.2	22.6	23.1	21.9	24.6	24.1	22.1	20.0	19.7	21.3
Salford	25.6	22.6	23.9	22.7	23.8	25.1	21.7	19.3	19.0	21.0
Oldham	22.0	20.3	19.2	17.6	20.5	19.6	19.6	19.1	18.6	18.3
Burnley	23.4	11.5	19.5	16.3	19.6	16.3	19.0	19.5	19.2	20.0
Blackburn	24.3	17.9	19.5	18.4	19.1	20.5	19.5	16.9	15.7	17.2
Preston	23.9	20.8	24.4	19.8	22.8	24.0	21.0	19.1	18.7	17.8
Huddersfield	16.9	16.5	16.4	15.9	16.2	16.8	16.7	17.8	16.7	17.5
Halifax	19.3	17.3	16.5	17.9	18.3	18.1	16.4	15.7	15.0	15.5
Bradford	19.9	16.5	17.5	17.6	18.4	16.4	16.8	15.8	16.4	17.5
Leeds	20.5	18.8	19.9	19.2	19.1	20.0	19.3	17.6	16.6	17.9
Sheffield	20.5	19.3	21.2	20.2	22.2	22.6	20.4	17.1	18.6	16.8
Hull	20.8	18.9	18.6	18.4	19.3	19.7	18.6	17.2	16.9	18.0
Sunderland	21.8	19.8	19.7	22.6	21.5	21.4	21.4	19.5	19.9	19.4
Gateshead	19.6	19.1	18.3	20.6	18.8	19.0	21.6	17.7	16.7	18.5
Newcastle-on-Tyne	20.5	18.5	19.1	21.4	20.6	19.5	21.9	19.9	19.2	19.4
Cardiff	19.9	19.0	16.8	17.0	18.1	16.5	15.7	16.9	14.4	15.2

TABLE XII.

Gives the population of each year, the annual deaths from all causes from the seven chief zymotic diseases, and the death-rates from 1852 to 1904 inclusive, in the Borough of Cardiff:—

Year.	Population.	All Causes.			Seven Chief Zymotic Diseases.		
		No. of Deaths.	Death Rates per 1,000.	Mean of 10 years.	No. of Deaths.	Death Rates per 1,000.	Mean of 10 years.
1852	19,724	620	31.4		175	8.8	
1853	21,094	644	30.5		129	6.1	
1854	22,464	925	41.1		353	15.7	
1855	23,834	641	26.9		71	2.7	
1856	25,204	772	30.6	29.2	136	5.3	6.3
1857	26,574	883	33.2		234	8.8	
1858	27,944	753	26.9		128	4.5	
1859	29,314	826	28.1		212	7.2	
1860	30,684	662	21.5		95	3.0	
1861	32,054	837	26.1		100	3.1	
1862	32,804	695	21.2		132	4.0	
1863	33,552	862	25.7		268	7.0	
1864	34,300	932	27.1		250	7.3	
1865	35,048	867	24.7		161	4.5	
1866	35,796	882	24.6	24.2	192	5.3	4.6
1867	36,544	873	23.8		116	3.1	
1868	37,292	843	22.6		109	2.9	
1869	38,040	1,005	26.4		156	4.1	
1870	38,788	903	23.2		133	3.4	
1871	39,356	891	22.5		158	3.9	
1872	40,284	916	22.7		234	5.8	
1873	41,032	995	24.2		103	2.5	
1874	41,780	885	21.2		154	3.6	
*1875	69,850	1,547	22.1		294	4.2	
1876	72,438	1,455	20.8	20.0	339	4.6	3.2
1877	75,026	1,475	19.6		255	3.5	
1878	77,614	1,468	18.9		197	2.5	
1879	80,202	1,428	17.6		137	1.7	
1880	82,790	1,634	19.7		306	3.7	
1881	85,378	1,556	18.2		164	1.9	
1882	88,603	1,724	19.4		293	3.3	
1883	91,204	1,807	19.8		253	2.7	
1884	93,468	2,250	24.3		476	5.0	
1885	97,034	2,481	25.5		521	5.3	
1886	100,736	2,269	22.5	21.5	532	3.2	3.3
1887	104,580	2,280	21.8		278	2.6	
1888	108,570	2,212	20.3		324	2.9	
1889	112,712	2,190	19.4		248	2.1	
1890	117,012	2,469	21.1		282	2.4	
1891	130,283	2,873	22.0		272	2.0	
1892	132,895	2,560	19.2		371	2.7	
1893	136,168	2,794	20.4		408	2.9	
1894	139,519	2,415	17.3		257	1.8	
1895	142,958	2,840	19.9		324	2.2	
1896	146,479	2,795	19.0	17.9	362	2.4	2.3
1897	150,087	2,534	16.8		371	2.4	
1898	153,783	2,627	17.0		396	2.5	
1899	157,414	2,858	18.1		384	2.4	
1900	161,452	2,667	16.5		402	2.4	
1901	165,308	2,653	16.0		284	1.7	
1902	168,909	2,865	16.9		459	2.6	
1903	172,598	2,496	14.4		232	1.3	
1904	176,313	2,695	15.2		320	1.8	

* Canton and Roath taken into the Borough.

Populations and death-rates as estimated by the Registrar General previous to the Census of 1901:—

Year.	Estimated Population.	Death-rate.	Year.	Estimated Population.	Death-rate.
1892	.. 136,181	.. 18.7 per 1,000	1897	.. 170,063	.. 14.9 per 1,000
1893	.. 142,435	.. 19.6	1898	.. 170,770	.. 14.8
1894	.. 148,890	.. 16.2	1899	.. 185,826	.. 15.3
1895	.. 155,637	.. 18.2	1900	.. 194,247	.. 13.7
1896	.. 162,690	.. 16.8			

TABLE XIII.—Analysis of Deaths in the Municipal Borough of Cardiff in the Registration Sub-districts, and in each Ward in the Borough during the Year 1904.

LOCALITIES.	Population, 1904.	Area in Acres.	Persons per Acre.	Total Births.	Birth-rate.	Total Deaths.	Death-rate.	Deaths under One Year per 1,000 Births Registered.	Zymotic Diseases.				Principal Zymotic Diseases.												Diseases of Respiratory Organs.							
									Seven Chief Zymotic Diseases.		Small-pox.		Measles.		Scarlatina.		Diphtheria.		Whooping Cough.		Typhoid Fever.		Typhus Fever.		Diarrhoea.		Tubercular Meningitis, and Tuberculosis.		Phthisis.		Deaths.	Death-rate.
									Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.		
Borough of Cardiff ..	176,313	6,373	27	5,208	29.5	2,608	14.7	144,320	1.81	1	0.005	64	0.36	25	0.14	31	0.17	61	0.34	9	0.05	..	..	129	0.73	97	0.55	240	1.36	419	2.54
West Cardiff Sub-district.	Canton Ward ..	..	..	697	29.3	287	12.0	131	38	1.18	..	6	0.25	..	..	4	0.16	3	0.12	..	..	..	..	24	1.01	13	0.54	21	0.88	65	2.74
	Riverside Ward ..	..	..	428	23.5	206	11.3	135	30	1.65	..	6	0.33	..	..	1	0.05	8	0.44	2	0.11	..	..	15	0.82	6	0.33	12	0.66	32	1.76
	Grange-down Ward ..	..	..	786	40.1	299	15.2	170	54	2.76	..	13	0.66	1	0.05	4	0.20	10	0.51	..	..	..	..	26	1.32	20	1.02	25	1.27	59	3.01
	West Cardiff ..	61,421	2,060	29	1,911	31.1	792	12.8	148,122	1.98	25	0.40	1	0.01	9	0.14	21	0.34	2	0.03	65	1.05	39	0.63	58	0.94	156	2.53
Central Cardiff Sub-district.	South Ward ..	..	..	276	25.8	163	15.2	173	11	1.02	..	3	0.28	1	0.09	..	..	..	..	..	..	..	7	0.65	2	0.18	23	2.15	36	3.36	
	Central Ward ..	..	..	231	20.2	163	14.2	164	15	1.31	..	2	0.17	..	..	3	0.26	1	0.08	..	..	..	..	9	0.78	..	..	21	1.83	23	2.01
	Gadlys Ward ..	..	..	641	30.1	236	11.1	110	30	1.41	..	10	0.47	3	0.14	4	0.18	8	0.37	1	0.04	..	..	4	0.18	12	0.56	18	0.84	37	1.74
	Adams-down Ward ..	..	..	427	33.9	195	15.5	142	29	2.30	..	1	0.07	2	0.13	1	0.07	7	0.55	2	0.15	..	..	14	1.11	7	0.55	13	1.03	38	3.02
Central Cardiff ..	55,914	3,832	14	1,575	28.1	757	13.5	138	85	1.52	..	16	0.28	6	0.10	8	0.14	16	0.28	3	0.05	..	..	34	0.60	21	0.37	75	1.34	134	2.39
East Cardiff Sub-district.	Splott Ward ..	..	..	619	37.4	249	15.0	163	21	1.27	..	2	0.12	1	0.06	1	0.06	6	0.36	..	..	..	..	11	0.66	12	0.72	9	0.54	52	3.14
	Roth Ward ..	..	..	445	28.1	211	13.3	123	28	1.76	..	4	0.25	..	..	2	0.12	13	0.82	..	..	..	..	9	0.56	12	0.75	23	1.45	31	2.14
	Park Ward ..	..	..	562	21.9	240	9.3	120	19	0.74	..	8	0.31	..	..	..	..	5	0.19	1	0.03	..	..	6	0.23	5	0.19	26	1.01	38	1.48
	East Cardiff ..	57,930	431	120	1,626	28.0	700	12.0	137	68	1.17	..	14	0.24	1	0.01	3	0.05	24	0.41	1	0.01	26	0.45	29	0.50	58	1.00	134	2.11
Infectious Diseases Hospital ..	162	..	..	..	..	33	..	..	30	1	..	..	..	17	..	10	..	..	..	2	..	..	..	..	..	..	..	..	..	1	..
Union Workhouse ..	880	..	..	96	..	242	..	258	13	..	..	9	..	..	..	..	..	..	..	..	..	..	..	4	..	6	..	48	..	30	..
Infirmary ..	175	..	..	..	..	81	..	..	2	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	2	..	1	..	4	..
Seamen's Hospital ..	49	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

INFANT MORTALITY.

The following table shows the rate of infant mortality which has prevailed in the large towns in past years.

TABLE XIV.

TOWNS.	Death under one year to 1,000 Births registered.									
	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904
London ...	166	161	158	167	167	160	149	141	131	144
West Ham ...	168	165	171	170	197	189	171	149	146	165
Croydon ...	134	150	134	150	154	132	141	132	108	129
Brighton ...	164	135	142	181	173	166	161	125	114	133
Portsmouth ...	175	154	168	156	197	155	163	152	114	145
Plymouth ...	178	178	183	170	190	175	149	155	144	173
Bristol ...	143	142	148	164	158	133	131	131	116	133
Swansea ...	178	161	139	184	166	175	174	135	165	172
Wolverhampton ...	218	184	217	200	184	206	163	134	141	152
Birmingham ...	183	197	214	191	191	199	187	157	159	195
Norwich ...	190	164	196	192	179	178	183	167	150	180
Leicester ...	203	187	205	191	195	175	175	153	160	163
Nottingham ...	190	168	205	178	210	196	193	159	165	175
Derby ...	161	151	167	169	162	174	154	125	128	143
Birkenhead ...	174	177	162	186	186	160	181	148	156	180
Liverpool ...	210	173	200	184	198	186	188	163	159	196
Bolton ...	212	168	186	168	181	171	172	134	152	167
Manchester ...	203	176	194	197	206	189	199	152	169	187
Salford ...	231	199	220	212	209	207	204	157	167	193
Oldham ...	190	184	183	175	198	172	173	148	160	155
Burnley ...	242	170	219	195	269	205	226	177	217	232
Blackburn ...	236	171	207	206	189	220	193	159	157	191
Preston ...	248	203	263	225	255	236	216	189	161	183
Huddersfield ...	158	166	130	153	152	132	132	138	120	136
Halifax ...	158	149	139	163	159	132	127	144	122	130
Bradford ...	203	143	178	185	181	141	168	139	148	166
Leeds ...	191	169	191	182	171	183	188	159	153	176
Sheffield ...	197	173	197	195	194	200	201	150	182	159
Hull ...	205	173	178	182	175	183	175	137	162	181
Sunderland ...	189	158	163	202	175	169	182	147	157	165
Gateshead ...	186	172	173	208	177	169	197	136	159	174
Newcastle-on-Tyne ...	186	165	177	190	193	170	178	139	165	156
Cardiff ..	179	165	150	158	164	141	148	145	122	144

The infant mortality in the Borough during the year compared favourably with that in previous years, being slightly below the average. The number of deaths under one year of age to 1,000 births registered, was 144 in the year 1904, as compared with 153 in the 10 years 1894—1903. The rate of infant mortality in the year 1904, in England and Wales, was 146, and in the 76 large towns 160.

Notwithstanding the comparatively favourable character of these statistical returns, there are others from the contemplation of which we do not derive so much satisfaction. They indicate rather that the community is subject to influences which are operating in an entirely contrary direction. The effect of these influences is by no means confined to this locality, and has been felt more or less acutely, for many years past, throughout the United Kingdom. It is only in quite recent years that the downward movement has set in in Cardiff. The Chief factors concerned in this movement are :—

- (1) A decline in the marriage rate.
 - (2) A continuous and uninterrupted decline in the birth rate.
 - (3) A stationary or increasing rate of infant mortality.
- (a) **DECLINE IN THE MARRIAGE RATE.**—With respect to the marriage rate, the Registrar General remarks that “Since a large majority of the population are either already married, or are below the minimum age at which marriages take place, it is manifest that the total population is not a satisfactory standard by which to measure the rate of marriage.”

It will be seen on referring to table VIII. that taking either the marriage rate or the actual number of marriages during the year, that a decline is taking place in Cardiff, and generally it may be stated that throughout the country the marriage rate is declining in proportion to that section of the population among which marriages take place.

- (b) **DECLINE IN THE BIRTH-RATE.**—In England and Wales this decline commenced about the year 1880. The rate which averaged 35·5 per 1,000 of the population from 1861 to 1880 fell as follows :—

Periods.	Birth-rate.
1881—1885	33·5 per 1000
1886—1890	31·4 ”
1891—1895	30·5 ”
1896—1900	29·3 ”
1901—1903	28·5 ”
1904.. .. .	27·9 ”

In Cardiff, the birth-rate which averaged 41 per 1,000 during the ten years ending 1890, commenced to decline soon after that year, as follows :—

Year.	Birth-rate.
1891	36·5 per 1,000
1892	35·3 ”
1893	36·0 ”
1894	34·4 ”
1895	34·1 ”
1896	34·3 ”
1897	31·1 ”
1898	31·1 ”
1899	28·6 ”
1900	35·2 ”
1901	31·4 ”
1902	31·2 ”
1903	30·5 ”
1904	29·5 ”

Various causes have been assigned for the decline in the marriage and birth rates, into which it is unnecessary to enter in this report, as they are beyond the direct control of the Sanitary Authority. It has been suggested that this decline in the birth rate is of little importance in view of the decreasing death rate, but it must be borne in mind that a birth rate may decline indefinitely, whereas there is a limit below which a death rate can hardly go. For instance, in a stationary population, an annual death rate of 10 per 1,000 implies a mean age at death of 100 years, it is clear therefore that in Cardiff we cannot hope for a continuous death rate much below our present figure of 15 or 14 per 1,000. If therefore our birth rate continues to decline, and our death rate remains stationary, we may be approaching a period when, apart from immigration, the population will begin to diminish.

- (c) The rate of infant mortality is, however, a matter with which the Sanitary Authority is very directly concerned, as this may undoubtedly be reduced by energetic and well directed administrative work. The rate is usually calculated in the proportion of the number of deaths of children under one year of age to 1,000 births registered, and for the whole of England and Wales, is given by the Registrar General, as follows :—

Periods.	Deaths under 1 year to 1,000 births.				
1876—1880	144
1881—1885	138
1886—1890	145
1891—1895	150
1896—1900	156
1901	151
1902	133
1903	132
1904	146

The rate of infant mortality varies considerably in different parts of the country, being much higher in the large Urban Districts than in Rural Districts. This is shown in the following table, taken from the Registrar General's Summary for the year 1904 :—

	Annual death-rate of Infants under 1 year, per 1,000 births.				
England and Wales	146
76 great towns	160
142 smaller towns	154
Rural England and Wales	125

The rate of infant mortality in the large towns, as compared with that of Cardiff, during successive periods, is shown in the following table :—

TABLE XV.

THIRTY-THREE LARGE TOWNS.		CARDIFF.	
Period.	Death-rate of Infants under 1 year, per 1,000 births.	Period.	Death-rate of Infants under 1 year, per 1,000 births.
1881-1890	162	1881-1890	165
1891-1900	172	1891-1900	161

The recent rates in the large towns are not compared with those in years previous to 1900, as the Registrar General has since that date included 76 in the list of large towns. From the foregoing figures it will be seen that the infant mortality in the whole of England and Wales is stationary, or even slightly increasing, and that in the large towns it is actually increasing, and that in Cardiff the rate of infant mortality has been reduced to an average of 153 in the 10 years 1894—1903, and to 144 in the year 1904. The increasing rate in the whole of England is, of course, largely due to the greater increase in the large towns, as no such increase is found in the rural districts. The rate of infant mortality in Cardiff appears to be diminishing, although it must be borne in mind that exceptional meteorological conditions in 1902 and 1903, by reducing the diarrhoea death rate amongst infants, were largely responsible for the low rates in those years. It will be seen also that in Cardiff the rate of infant mortality was below the average rate in the large towns in each quarter of the year 1904, excepting the first quarter, in which measles and whooping cough was exceptionally fatal amongst infants and young children.

Even in the large urban districts the rate of infant mortality varies considerably, being higher in the densely populated manufacturing and mining towns. During the year 1904 this rate ranged from 87 in Hornsey, 102 in King's Norton, 107 in Hastings, and 115 in Willesden, to 183 in Preston, 188 in Wigan, 190 in Rhondda, 191 in Blackburn, 193 in Salford, 195 in Birmingham, 196 in Liverpool, 201 in Stockport, and 206 in Hanley. It is evident therefore that the conditions of life in the large industrial centres are inimical to infant life. These conditions in Cardiff stand, as it were, between the two extremes, the satisfactory feature being that although the rate of infant mortality was formerly (1881—90) 3 per 1,000 above the average rate in the large towns, it was reduced during the more recent period (1891—1900) to 11 per 1,000, and during 1904 to 16 per 1,000 below that average.

It will be well to consider the causes of death, which are chiefly responsible for the mortality amongst infants and young children. Generally, they include the following:—Pneumonia, bronchitis, diarrhoeal diseases, measles, whooping cough, convulsions, atrophy debility and inanition, and tubercular diseases. In Cardiff, during the year 1904, the chief causes of death amongst infants was as follows:—

Causes of death.				Number of deaths of infants under 1 year of age.
Diarrhoea	..	..	..	105
Premature birth	..	..	..	78
Pneumonia	..	..	..	74
Bronchitis	..	..	..	44
Tuberculosis	..	..	..	38
Whooping Cough	..	..	..	31
Measles	..	..	..	22

The following table shows the percentage proportion of deaths under 5 years of age, to the total deaths at all ages, from certain diseases, in Cardiff, during the year 1904:—

Measles	..	..	95 per cent.
Whooping Cough	..	..	93 „
Diarrhoea	..	..	93 „
Diphtheria and Croup	..	..	87 „
Scarlet Fever	..	..	64 „
Pneumonia	..	..	55 „
Bronchitis	..	..	33 „

As usual, most of the deaths from diarrhoea occurred during the summer and autumn. Much of this mortality could be prevented if proper attention were given to the feeding of infants and young children. Many of the deaths from diarrhoeal diseases are directly attributable to improper food and to the want of care and ignorance of mothers, and those in charge of them. There is much evidence to show that artificial feeding is responsible for the unnecessarily high rate of infant mortality, especially during the hot weather, when the conditions are most unfavourable for the preservation of the various kinds of foods administered. With a view of reducing the infant mortality caused by improper food, municipal milk depots have been estab-

lished in some large towns and districts, from which sterilized and humanized cows' milk is supplied to mothers at a reasonable charge. These institutions are well spoken of by those who have been instrumental in their establishment. At present, however, it is not possible to give a decided opinion as to the advantages of the municipality undertaking this work. In my opinion, for any such scheme to be of real service, the Local Authority should have complete control of the Dairy or Farm supplying the milk, which should be administered only to suitable cases under medical supervision.

INFECTIOUS DISEASES.—The 2,704 deaths from all causes included 320 from the principal infectious diseases. The subjoined table shows the number of deaths from each of these diseases during the year 1904:—

Disease.	Number of Deaths.			
Small Pox	1
Measles	64
Scarlet Fever	25
Whooping Cough	61
Diphtheria and Membranous Croup	31
Enteric Fever	9
Diarrhoea	129
Total	320

The 320 deaths from these diseases were equivalent to an annual death-rate of 1·8 per 1,000 persons living, as compared with 1·3 the rate in the year 1903, and with 2·2 the average rate in the ten years 1894—1903.

The death-rate from the principal infectious diseases in England and Wales, in 1904, was as follows:—

	Death-rate per 1,000.			
England and Wales	1·94
76 great towns	2·49
142 smaller towns	2·02
Rural England and Wales	1·28

In Cardiff the death rate from this group of diseases in the several Registration Sub-districts was as follows:—

East Cardiff Registration Sub-District ..	..	1·17 per 1,000
West „ „ „ ..	..	1·98 „
Central „ „ „ ..	..	1·52 „

TABLE XVI.

Cases of infectious diseases notified in the Cardiff Urban Sanitary District since the adoption of the Infectious Diseases Notification Act, 1889:—

	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904
Small-pox ..	..	9	5	4	10	1	45	7	..	..	4	8	2	65	11
Diphtheria ..	63	67	155	462	326	229	296	512	940	628	706	724	686	431	389
Croup ..	9	3	9	17	17	19	10	4	20	12	8	10	15	7	17
Scarlet Fever ..	335	685	1,851	816	577	484	874	758	332	184	383	1,362	1,433	963	658
Enteric Fever ..	152	130	118	105	62	79	74	117	80	94	95	73	76	105	42
Typhus Fever ..	..	..	..	41	1	..	1	..	..	..	4	..	..	6	..
Erysipelas ..	45	52	95	152	135	132	134	163	133	176	106	152	169	145	112
Puerperal Fever ..	4	10	12	24	19	17	21	12	18	13	15	16	13	20	12
Total ..	608	956	2,245	1,621	1,147	961	1,455	1,573	1,523	1,107	1,321	2,345	2,394	1,742	1,341

MEASLES.—Sixty four deaths were registered as due to measles during the year 1904. These deaths were equivalent to an annual death-rate of 0·36 per 1,000 persons living, as compared with 0·15 the rate in the year 1903, and with 0·38 the average rate in the ten years 1894—1903.

The mortality from measles throughout the country was as follows:—

1904.				Death-rate.
England and Wales	..	..	..	0·36 per 1,000
76 great towns	..	..	..	0·47 „
142 smaller towns	..	..	..	0·36 „
Cardiff	..	..	..	0·36 „

From the above it will be seen that the rate of mortality from measles was high throughout the country during the year 1904.

In Cardiff the rate of mortality was highest in the first quarter of the year. The following table shows the death-rate in each quarter as compared with that of the large towns:—

Death-rate per 1,000 from measles:—

	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.
Cardiff	0·66	0·45	0·11	0·24
76 large towns	0·46	0·64	0·38	0·42

It is with regret that Medical Officers of Health throughout the country, and especially those in large towns, have to report that the mortality from measles has increased during the past twenty-five years. Many difficulties stand in the way of controlling the spread of this disease. In the first place the disease is not notified to the Medical Officer of Health, and secondly, the effectual isolation of even those cases which are known to exist, is difficult to secure. We may, however, anticipate an improvement in this direction when the new Education Authorities realize their great responsibilities in connection with the prevention of disease amongst school children. Up to the present, by permitting and encouraging the attendance at school of children at the early age of three years, the opportunities of infection have been increased, particularly amongst children at the ages at which measles is most fatal.

SCARLET FEVER.—Twenty-five deaths were registered from scarlet fever, corresponding to an annual death-rate of 0·14 per 1,000 persons living, as compared with 0·18 the death-rate in 1903, and with 0·11 the average death-rate in the ten years 1894—1903.

The mortality from scarlet fever throughout the country was as follows:—

1904.				Death-rate
England and Wales	..	..	..	0·11 per 1,000
76 great towns	..	..	..	0·12 „
142 smaller towns	..	..	..	0·13 „
Cardiff	..	..	..	0·14 „

The number of cases of scarlet fever notified during the year 1904 was 658. The number of such cases notified in each year since the Infectious Disease Notification Act came into force is shown in the following table, which shows also the attack rate, or proportion of cases notified per 1,000 persons living and the death rate per 1,000, and the percentage proportion of deaths to cases notified:—

TABLE XVII.

Year.	Population.	No. of Cases Notified.	Attack rate per 1,000.	No. of Deaths.	Death rate per 1,000.	Percentage Removed to Hospital.	Mortality per cent. of Cases Notified.
1891 ..	130,283	685	5·25	35	0·27	—	5·0
1892 ..	132,895	1,851	13·17	87	0·65	13	4·7
1893 ..	136,168	816	6·00	39	0·28	22	4·7
1894 ..	139,519	577	4·13	8	0·05	31	1·3
1895 ..	142,958	484	3·38	8	0·05	43	1·6
1896 ..	146,479	874	5·96	28	0·19	48	3·2
1897 ..	150,087	758	5·05	17	0·11	50	2·2
1898 ..	153,783	332	2·15	8	0·05	56	2·4
1899 ..	157,414	184	1·16	3	0·01	66	1·6
1900 ..	161,452	383	2·37	11	0·06	65	2·8
1901 ..	165,308	1,362	8·23	29	0·17	47	2·1
1902 ..	168,909	1,433	8·42	36	0·21	48	2·1
1903 ..	172,598	963	5·57	32	0·18	63	3·7
1904 ..	176,313	658	3·73	25	0·14	72	3·3

The local incidence of scarlet fever in each quarter of the year, as shown by the notifications in the Registration Sub-Districts, was as follows:—

	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total.
West Cardiff	78	66	43	42	229
Central Cardiff	111	50	37	49	247
East Cardiff	65	25	39	53	182
Total	254	141	119	144	658

The proportion of deaths from scarlet fever to cases notified amounted to 3·7 per cent., and of these 658 cases, 478 or 72 per cent. were removed to the Hospital for Infectious Diseases.

A large number of certificates for exclusion from school attendance were granted, both with respect of children infected with scarlet fever and of those who had been in contact with infected persons. The total number of notices for exclusion from the Public Elementary Schools amounted to 808 during the year distributed as follows:—

Name of School.	Number of Notices sent to Schools.
Roath Park Council School	95
Crwys Road Council School	60
Severn Road Council School	57
Gladstone Council School	54
Albany Road Council School	53
Court Road Council School	47
Adamsdown Council School	44
Wood Street Council School	36
Grangetown Council School	30
St. Peter's Roman Catholic School	30
St. James' National School	29
Marlborough Road Council School	24
Radnor Road Council School	23
Higher Grade School	22
St. German's National School	19
St. Monica National School	19
St. David's Roman Catholic School	18
Stacey Road Council School	17
Virgil Street Council School	16
St. Patrick's Roman Catholic School	13
Mount Stuart Square National School	12
St. Paul's Roman Catholic School	11
Eleanor Street Council School	9
Lansdowne Road Council School	9
Moorland Road Council School	9
Splott Road Council School	8
St. Andrew's National School	7
St. John's (Canton) National School	7
Grangetown National Schools	6
Intermediate Schools	4
St. Cuthbert's Roman Catholic School	4
Bute Terrace National School	2
School for Deaf and Dumb	2
South Church Street Council School	2
Crofts Street National School	2
St. John's (Queen Street) National School	2
Maindy Council School	2
Heathfield House School	1
St. Alban's Roman Catholic School	1
St. Dyfrig's National School	1
Ely Council School	1
Total	808

DIPHTHERIA AND MEMBRANOUS CROUP.—Thirty-one deaths were registered from these diseases during the year 1904, corresponding to an annual death-rate of 0·17 per 1,000 persons living, as compared with 0·20 the rate in 1903, and with 0·46 the average rate in the 10 years 1894—1903.

The mortality from diphtheria throughout the country was as follows:—

1904.				Death-rate.
England and Wales .. .. .	..	..	..	0·17 per 1,000
76 great towns .. .. .	..	..	..	0·19 „
142 smaller towns .. .. .	..	..	..	0·16 „
Cardiff .. .. .	..	..	..	0·17 „

The number of cases of diphtheria notified during the year was 389, as compared with 438 in the year 1903. The following table shows the number of notifications of cases of diphtheria and the mortality in each year since 1891:—

TABLE XVIII.

Year.	Population.	No of Cases Notified.	No of Deaths.	Death-rate per 1000.	Mortality per Cent. of Cases Notified.
1891 ..	130,283	67	16	0·21	23·8
1892 ..	132,895	155	36	0·27	23·2
1893 ..	136,168	462	93	0·67	20·1
1894 ..	139,519	326	59	0·42	18·0
1895 ..	142,548	229	46	0·32	20·0
1896 ..	146,479	296	55	0·38	18·6
1897 ..	150,087	512	90	0·59	17·5
1898 ..	153,783	940	129	0·84	12·6
1899 ..	157,414	628	61	0·38	9·7
1900 ..	161,552	706	81	0·60	11·4
1901 ..	165,308	724	78	0·47	10·7
1902 ..	168,909	686	88	0·52	12·8
1903 ..	172,598	438	36	0·20	8·2
1904 ..	176,313	389	31	0·17	7·9

It is satisfactory to note that the incidence of diphtheria, as represented by the number of notifications, has sensibly declined during the past three years, and that the death-rate in 1904 was the lowest recorded since 1891. The fatality or proportion of deaths from diphtheria to cases notified in Cardiff during the year 1904 was at the rate of 7·9 per cent. This was also the lowest fatality during the same period, and showed that the disease was generally of a mild type. Of the cases notified 193, or 48 per cent., were removed to the Cardiff Sanatorium for isolation and treatment

Diphtheria was distributed amongst the Registration Sub-Districts as follows, in 1904:—

				Notifications.	Deaths.
East Cardiff .. .. .	..	..	..	115	3
Central „ .. .. .	..	..	..	142	8
West „ .. .. .	..	..	..	132	9

This disease chiefly attacks children, amongst whom it frequently assumes a severe and fatal form. The number of notifications and the rate of fatality at various age periods, in Cardiff, during the year 1904, is given below:—

Age Periods.	Cases Notified.	Deaths.	Proportion of Deaths to Cases Notified.
Under 1 year	7	5	71·4 per cent.
1—5 years	112	22	19·6 „
5—15 „	187	4	2·1 „
15—25 „	41	..	0·0 „
25—65 „	42	0	0·0 „
65 years and upwards ..	0	0	0·0 „

The death-rate from diphtheria in the large towns during the year 1904 ranged from 0·02 per 1,000 in West Bromwich, with 0·03 in Hastings and Leicester to 0·50 in Salford, 0·53 in Bradford, and 0·60 in Hanley.

DIARRHOEA.—The deaths from diarrhoea, including those from epidemic enteritis, numbered 129, being equal to an annual death-rate of 0·73 per 1,000 persons living, as compared with 0·47 the rate in 1903. The average death-rate from diarrhoea in Cardiff in the 10 years 1894–1903 was 0·68 per 1,000.

The mortality from diarrhoea throughout the country in the year 1904 was as follows:—

	Death-rate.			
England and Wales	0·86	per	1,000	
76 great towns	1·20			„
142 smaller towns	0·89			„
Cardiff	0·73			„

The distribution of fatal diarrhoea in Cardiff according to the season of the year, and the various age periods, was as follows:—

	Under one Year.	One and under Five Years.	Five and under Fifteen Years.	Fifteen and under Twenty-five Years.	Twenty-five and under Sixty-five.	Sixty-five years and upwards.	Total.
1st Quarter, 1904	6	2	—	—	—	1	9
2nd Quarter ,	3	—	1	—	2	1	7
3rd Quarter „	89	12	1	—	3	—	105
4th Quarter „	7	1	—	—	—	—	8
Year „	105	15	2	—	5	2	129

From the preceding table it will be seen that of the 129 deaths from diarrhoea during the year, 105 occurred in the third quarter of the year; of these 89 were amongst infants under one year of age.

The relation between the temperature of the air, rainfall, and the diarrhoea mortality during the third quarters of the year 1892–1904 is shown in the following table:—

TABLE XIX.

Diarrhoeal mortality in the 3rd quarters of the years 1892–1904

Year.	Death-rate per 1,000.	Mean Temperature.	Rainfall in inches.
1892 ..	2·3	60°·4	12·4
1893 ..	2·5	61°·0	8·9
1894 ..	0·5	57°·0	10·6
1895 ..	2·5	59°·5	9·9
1896 ..	2·4	58°·9	11·3
1897 ..	2·6	59°·3	14·3
1898 ..	2·6	60°·3	5·8
1899 ..	3·2	63°·3	5·3
1900 ..	1·2	59°·7	6·0
1901 ..	1·4	60°·2	11·1
1902 ..	0·8	57°·5	9·5
1903 ..	1·2	56°·9	13·1
1904 ..	2·3	59°·3	11·1

From the foregoing table it will be seen that a high diarrhoeal death-rate is usually associated with a comparatively hot and dry summer, and a low death-rate with a cool and wet summer. This relation is also shown in the chart in the appendix.

As usual, an inquiry was made by Miss Hoyle, the Woman Inspector, into the nature of the food supplied to infants who died from diarrhoea. This inquiry is of course confined to those living in the poorer districts in the town. The results of this investigation is given below, and affords useful information as to the danger to infant life of artificial and improper food.

Nature of Food.	Under 3 Months.	3-6 Months.	6-12 Months.	Total.
Condensed milk and other food	3	4	17	24
Condensed milk	1	—	2	3
Cows milk and other food	3	3	11	17
Cows milk	2	—	—	2
Breast fed and other food	1	3	1	5
Breast fed	2	—	1	3
Total				54

When directed, Miss Hoyle visits the house in which a birth has occurred, and leaves a printed pamphlet of instructions on infant feeding, drawn up by the Medical Officer of Health, and at the same time gives any necessary verbal advice. The houses selected are those in which the poorer classes live, and in which such assistance is likely to be useful and appreciated. In this way it is hoped to obtain a record of the method of infant feeding adopted, and the extent of its influence upon infant mortality. The following table shows the number of visits made, and the results of the inquiries during the year 1904:—

Breast fed	189
Breast fed and other food	90
Condensed milk only	82
Condensed milk and other food	97
Cows milk and other food	34
Total	492

ENTERIC FEVER.—Nine deaths from enteric fever were registered during the year 1904. These deaths corresponded to an annual death-rate of 0·05 per 1,000 persons living, as compared with 0·08 the average rate in the 10 years 1894–1903.

The mortality from fever (including typhus and enteric fevers) throughout the country was as follows:—

1904.	Death-rate.
England and Wales	0·09
76 great towns	0·10
142 smaller towns	0·10
Cardiff	0·05

In the large towns the death-rate from enteric fever during the year 1904 ranged from 0·01 per 1,000 in Hastings to 0·23 in Nottingham, 0·24 in Wigan, 0·25 in Preston and in Merthyr, to 0·34 in Rhondda.

Forty cases of enteric fever were notified during the year in Cardiff, of these twenty-three were removed to the Sanatorium.

Notwithstanding the prevalence of enteric fever in some of the neighbouring urban districts, Cardiff remained comparatively free from the disease, and from the subjoined table it

will be seen that the mortality was far lower than the average in other parts of England and Wales. Of the cases notified as enteric fever, five were subsequently found to be suffering from some other disorder, and in 13 cases the source of infection was outside this district.

The drains and sanitary appliances in all the houses in which cases of enteric fever were notified were examined, and defects found in eight of these houses. These were remedied without delay.

SMALL-POX.—Eleven cases of small-pox were notified during the year; one of these proved fatal. They were all removed to the small-pox Hospital.

The first case of this disease notified during the year occurred in Adeline Street, on 1st March. The origin of the infection in this case was not discovered. The patient was a dock labourer, working on board a vessel in the Docks, in which it was stated that no case of Small Pox had occurred during the voyage or stay in port. At the time no other cases of this disease were known to exist in Cardiff. On the 16th March a female servant in the same house, who had refused re-vaccination, developed the disease. On the 4th April, the Resident Medical Officer in the Workhouse Infirmary notified a case of small-pox in the Tramp Ward. The man probably contracted the disease in a Common Lodging House in Matlock, where a lad aged 19 years was supposed to be suffering from Chicken Pox. On the 18th May, my attention was called to a convalescent case of small-pox in 202, Clive Street, Grangetown. The patient had been under medical treatment for some weeks for Chicken Pox, and had therefore opportunities of infecting others. The following cases occurred as the result of this infection: The first case notified was that of a woman living in Bradford Street, Grangetown, who contracted the disease by nursing and attending to her friend in Clive Street, and who called my attention on that day to the latter case. On the same day three children of Mrs. R., in Clive Street, were found to be suffering from small-pox, one an infant 4 months old, and one a boy 4 years old, both unvaccinated, and one a boy 8 years of age vaccinated in infancy. The unvaccinated children had the disease in a severe confluent form which proved fatal in the case of the infant. The vaccinated boy had a very mild and modified attack.

On the 30th May a man, living at 222, Clive Street, was found to have suffering from small-pox as the result of visiting No. 202 in the same Street, and on the 3rd June, two lodgers in the same house who refused re-vaccination were also attacked with small-pox.

No further cases occurred in this neighbourhood or in any part of the town during the year 1904. All those attacked were removed to the small-pox Hospital, a large quantity of infected clothing was destroyed, and many persons who had been in contact with those suffering from the disease were re-vaccinated.

The following particulars have been supplied to me by the Vaccination Officer of the Board of Guardians, and relate exclusively to the Borough of Cardiff. During the year 1904, 5,226 births were registered within the Borough, 476 children died unvaccinated; of the remainder 3,825, or 80·5 per cent, were successfully vaccinated; 38 certificates of conscientious objection were granted, equal to 0·7 of the births. In 97 cases the vaccination was postponed, 513, or 13·4 per cent. were unaccounted for; 18 infants were stated to be insusceptible of vaccination, and 259 had removed to places unknown.

Whenever cases of small-pox occur in the district some difficulty arises with respect to the vaccination or re-vaccination of those who have been in contact with the infected person. This, perhaps the most important measure which can be taken to prevent the spread of small-pox, does not devolve upon the authority responsible for the prevention of disease, but is carried out by the authority charged with the relief of the poor, *i.e.*, the Board of Guardians. In accordance with a memorandum issued by the Medical Officer of the Local Government Board, dated March, 1901, the Medical Officer of Health is advised to give immediate notice to the Vaccination Officer of any case of small-pox in his district. It is the duty of the Vaccination Officer to take the necessary steps to ensure the vaccination or re-vaccination of persons who have been exposed to the infection of small-pox, and the Public Vaccinator, an official of the Guardians, is authorized to afford re-vaccination gratuitously to all persons over 10 years of age,

who have not previously been vaccinated or re-vaccinated within a period of ten years. In practice it is found that this offer of gratuitous vaccination is not a sufficient inducement, and that those who have been in contact with small-pox do not, to any great extent, avail themselves of it, more especially is this the case with sailors and inmates of common lodging houses, who are, perhaps, unwilling to risk the loss of a day's work

The Medical Officer of the Local Government Board, recognizing this difficulty, suggests (in the memorandum referred to) that in such cases it may be expedient that the Vaccination Officer should confer with the Guardians as to attendances being given by the Public Vaccinator at some specified place and hour. These methods of administration mean delay where promptitude is of the utmost importance. I would suggest that, with a view of securing without delay the re-vaccination of those exposed to infection, that the Sanitary Authority undertake themselves the responsibility of the re-vaccination in such cases, and that some further inducements be offered to those who submit to the operation for their own and for the public advantage. This work might be easily carried out at the office of the Port Sanitary Authority, and arrangements might be made either with the Public Vaccinator or with a medical practitioner, who would act in this matter under the direction of the Medical Officer of Health.

I feel sure that if some such method were adopted it would be easier than it is under the present arrangements to secure the vaccination and re-vaccination of those exposed to infection. The Medical Officer of Health and his staff of Inspectors usually have a better opportunity than the Vaccination Officer of collecting together such persons, and the place indicated would be suitable for the purpose.

TUBERCULOSIS.—The deaths from all forms of tuberculosis during the year 1904 amounted to 344, including 246 from pulmonary consumption, or phthisis.

The mortality from phthisis was equal to an annual death-rate of 1·36 per 1,000, the highest rate of any single disease during the year.

During the ten years 1894—1903 the average death rate from phthisis amounted to 1·34 per 1,000. The mortality from phthisis in Cardiff since the year 1880 is shown in the following table.

TABLE XX

Year.	Death-rate per 1,000.	Year	Death-rate per 1,000.
1880	3·21	1893	1·68
1881	2·96	1894	1·62
1882	2·86	1895	1·67
1883	2·67	1896	1·38
1884	2·97	1897	1·99
1885	3·58	1898	1·32
1886	2·78	1899	1·32
1887	2·72	1900	1·25
1888	2·80	1901	1·05
1889	2·79	1902	1·29
1890	3·18	1903	1·19
1891	2·78	1904	1·36
1892	1·82		

The measures introduced in the year 1901 with the object of preventing the spread of consumption have been continued

The objectionable and dangerous practice of spitting in public places, and vehicles, has now become an offence punishable by fine, under the provisions of two local bye-laws.

Under the Tramways Act, 1870, a bye-law has been made and came into operation during the year 1903, prohibiting, under a penalty, spitting in or on any car, and on the 1st December, 1904, a bye-law came into force, made under the powers of Sec. 23 of the Municipal

Corporations Act, 1882, prohibiting spitting on the floor, side, or wall of any public carriage, or of any public hall, public waiting room or place of public entertainment, under a penalty not exceeding £5.

In March, 1903, the Sanitary Authority appointed a Woman Inspector, Miss A. Hoyle, whose duty it is to visit all cases of phthisis notified to the Medical Officer of Health, and to report to him on a printed form the circumstances connected with each case.

A system of voluntary notification of phthisis has been in operation in the Borough since the year 1901, medical practitioners being invited to notify cases coming under their care upon terms similar to those in the Infectious Disease Notification Act. On the whole this system has proved of service, those cases being notified in which the medical practitioner considers that the assistance of the Officers of the Sanitary Authority would be desirable. Each case is visited immediately after the receipt of the notification, and the visit is repeated when necessary. The consumptives and their families are instructed personally and by means of pamphlets in the precautions necessary for preventing the spread of infection, and at the request, or with the consent of the medical man attending the case, some of the patient's sputum is taken to the Public Health Laboratory for the purpose of diagnosis. The bacteriological examination in all notified cases of phthisis being performed free of charge. In such cases also much good is effected by an inquiry into the sanitary condition of the premises occupied by the consumptive, as defects are remedied without delay.

In the event of a death from phthisis being returned by the District Registrar, a post card is sent to the occupier of the house in which the death occurred offering disinfection of the premises and of the infected articles.

During the year 1904 205 notifications of phthisis were received by the Medical Officer of Health, of these 130 were males and 75 were females; 46 were inmates of the Union Infirmary, and 9 were in receipt of out-door relief, of the females 8 were patients of the same Infirmary and 4 were in receipt of out-door relief. One hundred and forty-six applications were made for the disinfection of premises and articles in cases of notified phthisis. This was effected by the Sanitary Authority free of charge.

Bacteriological examinations of sputum were made in these cases. Of these, 49 gave positive results shewing the presence of the tubercle bacillus, and 9 gave negative results.

The notified cases of phthisis were visited by the Woman Inspector, Miss Hoyle, and the result of her inquiries are given below.

Occupation of the patients as stated at the time of visit:—

MALES.					
No occupation	..	..	..	..	59
Labourers	..	..	..	..	19
Dock Labourers	..	..	..	..	7
Boilermakers	..	..	..	..	5
Clerks	..	..	..	..	4
Not stated	..	..	..	..	4
Scholars	..	..	..	..	4
Coal Trimmers	..	..	..	..	3
Hauliers	..	..	..	..	2
Ship's Cook	..	..	..	..	2
Police Constables	..	..	..	..	2
Painters	..	..	..	..	2
Stone Carvers	..	..	..	..	1
Stone Masons	..	..	..	..	2
Baker	..	..	..	..	1
Scaffolder	..	..	..	..	1
Engine Driver	..	..	..	..	1
Plumber	..	..	..	..	1

Dairyman	1
Manager at Steel Works	1
Coal Weigher	1
Cabinet Maker	1
Musician	1
Billiard Marker	1
Soldier	1
Barman	1
Engineer's Steward	1
Groom	1

FEMALES.

Housewives	29
No occupation	20
Not stated	6
Domestic Servants	5
Scholars	6
Anglican Sisterhood (East Grinstead)	1
Trained Nurse	1
Clerk	1
Dressmakers	2
Seamstress	1
Charwoman —	2
Laundress	1

In some cases it was possible to discover the probable source of infection. This will be seen in the following table:—

Ref. No. Died from Phthisis.
in Register.

- 3—Father and mother.
- 4—Mother.
- 1—Sisters.
- 10—Father.
- 11—Mother and sisters.
- 18—Wife.
- 22—Mother.
- 22—Mother and sister.
- 15—Mother and sister.
- 42—Father and mother.
- 43—Mother.
- 46—Mother.
- 48—Mother.

Ref. No. Died from Phthisis.
in Register.

- 52—Mother and aunt.
- 56—Father and sister.
- 53—Father and brother
- 57—Husband.
- 65—Father and sister.
- 79—Father and sisters.
- 85—Father, mother, and brother.
- 95—Father and brother.
- 96—Mother and sister.
- 99—Father and sister.
- 100—Sisters.
- 102—Mother and sisters
- 104—Father and sisters.

TABLE XXI.

The following tables show the distribution of mortality from the chief zymotic diseases, from phthisis, from diseases of the respiratory organs, and from other causes, in each street in the Borough, during the year 1904:—

CENTRAL WARD.

NAME OF STREET.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhoea.	Phthisis.	Respiratory Diseases.	Other Causes.	Total.
Blackweir and Terrace	1	4	5	
Bridge Street	1	..	..	1	2	2	6	
Bute Street and Terrace	4	4	
Canal Street	2	..	1	3	
Caroline Street	1	2	3	
Charles Street	1	3	4	
Column Road	3	3	
Corbett Road	2	2	
Custom House Street	1	1	2	
David Street	3	3	
Dumfries Place	3	3	
East Terrace	1	..	..	1	2	
Edward Street	1	1	1	4	6	
Eisteddfod Street	3	3	
Frederick Street	1	..	..	1	2	3	7	
Gough Street	1	1	
Harris Court	1	1	
Havelock Street	1	..	..	..	..	1	1	..	3	
Hayes	1	1	
High Street	1	1	
Hill's Terrace	2	1	2	5	
Homfray Street	1	..	4	5	
Little Frederick Street	1	..	..	5	6	
Love Lane	1	..	..	..	1	1	2	
Mary Ann Street	1	..	..	..	..	1	..	4	6	
Millicent Street	1	4	5	
Nazareth House	4	4	11	19	
North Road	1	..	2	3	
Park Place	1	..	2	2	5	
Pembroke Terrace	1	1	
Peter's Court	1	..	..	..	..	..	1	2	
Plymouth Street	1	..	..	1	
Queen Street	2	2	
Raven Street	1	1	2	
Richmond Terrace	1	1	
Rodney Street	1	1	
Ruperra Street	1	..	..	..	2	3	
Scott Street	3	3	6	
Spring Gardens Court	1	..	1	1	
Station Terrace	1	..	..	..	1	
St. Andrew's Crescent	1	..	1	2	
St. John's Square	1	..	..	..	1	
St. Mary Street	2	2	4	
Tredegar Street	2	2	
Union Street	4	1	3	8	
Westgate Street	1	1	
Windsor Place	1	1	
Womanby Street	1	..	..	1	
Wood Street	3	3	
Total	2	..	3	1	..	9	21	23	104	163

SOUTH WARD.

NAME OF STREET.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhea.	Phthisis.	Respiratory Diseases.	Other Causes.	Total.
Adelaide Street and Place	5	5
Alice Street	1	1	2
Allen's Arch	1	1
Angelina Street	1	..	..	..	1
Burt Street	3	..	..	..	..	..	..	1	..	4
Bute Crescent and Lane	2	1	3
Bute Street and Esplanade	3	10	13
Canal	3	3
Canal Parade	1	1	3	5
Christina Street	7	5	12
Clarence Place and Embankment	1	..	..	4	5
Crichton Street and Place	2	1	..	3
Dudley Street and Place	1	..	2	3
Eleanor Street	2	2
Evelyn Street	1	1	..	3	5
Frances Street	1	1	3	5
George Street	1	..	..	..	1	1	..	2	5
Hamadryad Hospital	3	3
Harpur Street	1	..	..	1
Harrowby Street	4	..	4
Henry Street	1	1
Herbert Street	1	2	3	6
Hodges' Row	1	1
Hunter Street	2	1	2	5
James Street	2	1	3
Loudoun Square and Place	3	..	3	6
Louisa Street	2	..	3	5
Margaret Street	1	1	3	5
Maria Street	4	4
Mount Stuart Square	1	2	1	4
Nelson Street	2	2
North Church Street	1	..	..	1	..	..	1	2
Old Sea Lock	1	1
Patrick Street	1	1	2
Peel Street	3	3
Penarth Road and Terrace	1	1	..	2	4
Pomeroy Street	1	1	4	6
Sophia Street	2	2	3	7
South Church Street	1	1
South William Street	2	2	4
Stuart Street	1	1	1	3
Taff River	1	1
Timber Float	1	1
Tresillian Terrace	1	..	..	..	1
Tug Boat, Docks..	1	1
West Church Street	1	1
Windsor Esplanade	1	1
Total	3	1	..	..	..	7	23	36	96	166

CATHAYS WARD.

NAME OF STREET.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhoea.	Phthisis.	Respiratory Diseases.	Other Causes.	Total.
Alexander Street	1	..	..	1	..	..	..	2
Allen's Bank Crescent and Road	1	..	..	..	..	..	1	1	2	5
Barracks	1	..	..	1	2	4
Bruce Street	2	2
Cairns Street	1	..	..	..	..	..	3	4	9	17
Cathays Terrace	1	..	..	..	2	2	8	13
Catherine Street	1	1
Coburn Street	1	..	..	..	..	8	9
Cranbrook Street	4	4
Crwys Road	9	9
Cwmdare Street	1	2	..	3
Dalton Street	1	1	..	1	3
Daniel Street	1	..	2	4	7
Dogfield Street	1	..	..	..	..	..	..	2	6	9
Fair Oak Road	1	1
Fitzroy Street	1	..	1	2
Flora Street	1	..	..	..	..	2	3	6
Florentia Street	2	2
Gelligaer Street	1	1
Gladys Street	1	..	..	1
Glynrhondda Street	1	..	4	5
Harriet Street	3	7	7
Hirwain Street	1	1	..	..	..	..	..	..	2	4
Letty Street	3	2	5
Llanbleddian Gardens	2	2
Llandough Street	1	1
Llantrisant Street	1	..	..	..	..	..	..	..	5	5
Llantwit Street	1	..	..	..	1
Malefant Place and Street	4	4
Manor Street	1	..	..	..	1	2	4
May Street	1	..	1	..	..	..	..	1	1	3
Merthyr Street	1	..	..	..	..	..	..	1	1	3
Minister Street	1	..	2	3
Minnie Street	4	4	8
Miskin Street	1	..	..	..	2	5	8
Monthermer Road	2	1	3
Mundy Place	3	3
Norman Street	1	..	1
Richard Street	6	6
Robert Street	2	..	..	..	1	4	7
Salisbury Road	1	..	..	1	1	4	7
Senghenydd Place and Road	2	2
Talygarn Street	1	..	..	..	..	..	..	..	2	3
Tewkesbury Place and Street	2	..	..	1	..	..	1	..	2	6
Thesiger Street	1	2	5	8
Treherbert Street	2	1	..	..	..	1	1	1	1	6
Treorke Street	1	..	..	1	..	..	1
Whitchurch Place and Road	1	..	3	4
Woodville Road	1	1	6	8
Wyeverne Road	1	..	..	..	..	..	..	6	7
Total	10	3	4	8	1	4	18	37	151	236

PARK WARD.

NAME OF STREET.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhoea.	Phthisis.	Respiratory Diseases.	Other Causes.	Total.
Alfred Street	2	2	3	7
Albany Road	1	1	3	5
Angus Street	1	4	5
Arabella Street	8	8
Arran Street	1	1	1	4	7
Bangor Street	1	..	..	..	..	..	..	..	1	2
Bedford Street	1	..	..	..	..	..	1	1	3	6
Boverton Street	1	1
Byron Street	1	3	4
Cyfartha Street	1	..	..	..	4	5	10
Castle Road	1	..	..	..	..	1	1	..	9	12
Convent, The	1	..	4	5
Crofts Street	2	..	1	3
Crwys Road, Place, and Terrace	..	1	..	..	..	..	..	..	1	6	8
Daviot Street	2	2
Diana Street	1	..	..	2	..	2	5
Donald Street	1	..	..	2	1	5	9
East Grove	1	1
Elm Street	5	5
Glenroy Street	1	..	4	5
Gordon Road	2	2
Hendy Street	1	..	1
Inverness Place	1	..	5	4	10
Keppoch Street	1	..	..	..	..	1	1	2	1	6
Kingoraig Street	1	..	1
Lily Street	1	1
Lochaber Street	3	3
Mackintosh Place	2	7	9
Milton Street	1	..	..	..	1	4	6
Montgomery Street	1	..	1	2
Morlais Street	2	..	2	4
Moy Road	7	7
Newport Road	2	2
Northcote Street	1	..	2	3
Oxford Street	3	3
Parade, The	1	1
Pearson Street	1	1
Penline Street	1	1	2
Penylan	3	3
Penywain Road	1	..	1	2
Plasnewydd Road	1	..	..	1	2
Richmond Road and Crescent	4	8	14
Rose Street	1	1	1	3
Russell Street	1	1	2
Shakespeare Street	1	..	..	..	..	..	..	2	5	8
Southey Street	1	1
St. Peter Street	1	..	1
Strathnairn Street	5	5
Talworth Street	1	..	..	..	..	3	4
Treharris Street	2	..	..	..	1	..	..	2	4	9
Tynnedd Place	1	..	..	..	1
Upper Kingcraig Street	1	1	2
Violet Row	1	1
Walk, The	1	..	2	3
Wellfield Road	1	1
Werfa Street	1	..	1	2
Woodland Place	1	1
Wordsworth Avenue	1	..	..	1
Totals	8	..	..	5	1	6	26	38	156	240

ADAMSDOWN WARD.

NAME OF STREET.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhoea.	Phthisis.	Respiratory Diseases.	Other Causes.	Total.
Adam Street	1	2	1	4	8
Adamsdown Square	1	1
Ascog Street	1	..	..	..	..	..	..	..	1	2
Augusta Street	1	4	5
Bute Docks	2	1	3
Buzzard Street	1	2	3
Clifton Street	2	..	3	1	6
Clyde Street	1	3	4
Comet Street	1	1	2
Constellation Street	1	1	1	4	7
Copper Street	1	..	..	..	..	..	1	..	2
Cumnock Terrace	1	..	1	..	2
Cumrae Street	1	..	..	1	2
Cycle Street	1	1	2
Davis Street	1	1	2
Dowlais Works	2	2
Duffryn Street	1	1
East Basin and Dock	3	3
Eclipse Street	1	1	..	..	4	6
Ellen Street	1	..	..	2	3	2	8
Garth Street	1	2	2	5
Godfrey Street	1	1	2
Gold Street	2	2
Gwendoline Street	1	1
Howard Street	1	..	1
Inchmarnock Street	1	1
Infirmary	1	..	1	..	1	4	74	81
Iron Street	1	1
Ivor Street	1	1
Kerrycrov Street	1	..	..	2	3
Kilcattan Street	1	1
Kite Street	1	..	..	..	..	1	..	..	2
Lady Margaret Terrace	1	1
Lead Street	1	1	2
Longcross Street	1	..	1
Metal Street	1	1
Meteor Street	1	1	2
Moirs Place Street and Terrace	1	1	2	6	10
Moon Street	1	1
Morgan Street	1	..	..	..	1
New Dock	1	1
Newport Road	1	2	3
North Luton Place	1	..	..	..	..	2	3
North William Street	1	..	1	..	..	3	5
Orbit Street	1	..	..	..	..	..	2	3
Pellett Street	2	2
Penarth Roads	1	1
Pendoylan Street	1	..	1	7	9
Piercefield Place	1	1
Planet Street	1	..	..	..	2	4	7
Prince Leopold Street	1	1
Roath Basin and Dock	8	8
Roland Street	1	..	..	1	1	..	3
Sandon Place and Street	1	1	2	4
Sanguahar Street	1	1
South Terrace	1	1
South Luton Place	2	4	6
System Street	1	1	1	3	6
Taff Street	1	..	..	1
Tyndall Street	1	1	1	1	1	5
Victoria Street	1	..	..	..	1	3	5
West Dock	2	2
West Luton Place	2	2
Windsor Road	1	..	..	..	..	2	3
Zinc Street	2	2
Total	1	2	2	7	3	14	14	42	191	276

RIVERSIDE WARD.

NAME OF STREET.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhoea.	Phthisis.	Respiratory Diseases.	Other Causes.	Total.
Ann Street	2	..	2
Beauchamp Street	1	..	2	3
Blackstone Street	1	..	1	..	2
Brook Street	1	2	3
Brunel Street	1	1
Cathedral Road	1	..	1	9	11
Clare Gardens and Street	1	3	4
Coldstream Terrace	1	1
Cowbridge Road	7	7
Craddock Street	2	..	..	..	..	..	..	2	9	13
Deburgh Street	1	..	..	1	..	1	..	1	2	6
Despencer Gardens and Street	1	..	3	4
Dogo Street	1	1
Eldon Street	1	3	..	3	4	11
Fitzhauamon Embankment	2	2
Gloucester Street	1	1	1	6	9
Green Street	1	1
Halket Street	1	..	2	3
Jestyn Street	1	..	..	..	..	..	..	1
King's Road	3	1	..	13	17
Lewis Street	1	..	1	..	2	1	5
Lower Cathedral Road	1	1
Machen Place	1	..	..	..	..	..	..	..	..	1
Mandeville Street	1	..	..	1
Mansfield Street	1	..	1
Mark Street	1	..	..	1	..	..	..	2	..	4
Mortimer Road	1	1
Neville Place and Street	1	..	..	1	1	2	5
North Morgan Street	1	1
Picton Place	1	1
Plantagenet Street	1	..	2	3
Plasturton Avenue and Gardens	1	..	..	..	2	3
Pontcanna Street and Terrace	1	..	..	4	5
Rawdon Place	1	1
Rennie Street	1	..	..	..	1
Ryder Street	1	..	..	1	2
Severn Road	2	7	9
Smeaton Street	1	4	5
Sneyd Street	1	1
Stevenson Street	4	1	5
South Morgan Street	1	1	2
Talbot Street	2	2
Telford Street	1	2	3
Trevethick Street	1	1
Tudor Road	1	..	..	..	1	4	6
Union Workhouse	9	..	..	..	..	4	48	30	151	242
Wellington Street	1	..	..	..	..	..	..	..	10	11
Wells Street	2	..	1	3
Wyndham Crescent, Place, Road and Street	3	..	1	2	3	11	20
Totals	15	..	1	8	2	19	60	62	281	448

NAME OF STREET.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhoea.	Phthisis.	Respiratory Diseases.	Other Causes.	Total.
Albert Street	1	..	..	..	..	..	..	2	5	8
Ald-worth Road	2	4	6
Alexandra Road	3	3
Anglesea Street	1	1
Atlas Place and Road	1	1	2
Bassett Street	1	..	1
Beda Road	1	..	2	3
Bloom Street	1	..	..	..	..	..	1	..	1
Brecon Street	1	..	..	..	..	1	..	..	6	8
Brunswick Street	2	2
Burlington Terrace	1	1
Cardigan Street	1	1
Carmarthen Street	1	..	..	..	1
Chancery Lane	1	..	..	..	2	..	3
Olive Road	1	6	7
Coke Street	1	..	..	..	1
Conway Road	3	2	3	8
Cowbridge Road	2	2	3	9	16
Conybeare Road	3	2	5
Cumberland Street	1	1	2
Daisy Street	1	9	10
Denton Road	1	1
Egerton Street	2	2	4
Egham Street	1	..	..	1
Eldon Street	1	..	..	..	2	1	2	6
Ely Road	2	2
Ethel Street	4	1	3	4	12
Fern Street	1	1
Forrest Road	3	3
Glamorgan Street	2	..	1	3	6
Glynne Street	1	..	..	..	..	2	..	..	6	9
Gray Street	2	5	7
Grosvenor Street	6	6
Harvey Street	1	..	1	3	5
Ivy Street	1	1
Kingsland Road	2	2
Lansdowne Road	1	1	1	3
Leckwith Road and Place	2	..	1	3	6
Lincoln Street	1	..	..	1
Lionel Road	1	1	2
Llandaff Road	1	..	..	2	2	2	7
Llanfair Road	1	1	2	4
Loftus Street	1	..	..	1	1	2	4	9
Lyndhurst Street	2	2
Market Road	1	1	2
Mortimer Road	1	1	2
Myrtle Street	1	1
Nesta Road	1	..	1	2	4
Norfolk Street	1	1
Nottingham Street	1	2	3
Park Terrace	1	1
Pembroke Road	1	..	..	1	2
Pencisely Road	1	..	1
Penhill Road	2	2
Penlline Road	3	..	3
Penypeel Road	1	..	..	2	3
Pontcanna Place	1	1	2
Preswylfa Street	1	1
Radnor Road	2	..	2	5	9
Railway Terrace	1	..	1
Rectory Road	3	3
Regina Terrace	1	..	1
Rolls Street	2	..	..	..	..	..	2	..	1	5
Romilly Crescent and Road	1	2	5	8
Romilly Road West	1	..	1

CANTON WARD—Continued.

NAME OF STREET.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhoea.	Phthisis.	Respiratory Diseases.	Other Causes.	Total.
Seyern Road	3	6	9
Springfield Place	1	..	2	5	8
St. John's Crescent	1	2	3
Surrey Street	1	..	1
Theobald Road	1	..	1	2
Thurston Street	1	..	..	1
Tintern Street	3	3
Turberville Place	1	..	..	1	..	..	1	3
Turner Road	1	..	1
Wellington Street	1	3	4
Westmoreland Street..	1	..	..	..	..	1	1	3
William Street	1	..	1
York Street	1	..	..	1	..	..	..	..	..	2
Totals	6	..	4	3	..	24	21	65	164	287

ROATH WARD.

Agate Street .. ..	..	..	..	..	..	..	..	2	..	..	2
Arthur Street .. ..	..	..	..	..	..	..	..	..	..	6	6
Beresford Road .. ..	..	..	..	1	..	..	1	..	3	5	10
Bertram Street .. ..	..	1	..	..	..	..	..	1	1	4	7
Blanche Street .. ..	..	..	..	..	..	..	..	..	..	1	1
Booker Street .. ..	..	..	..	..	..	..	..	..	1	1	1
Bradley Street .. ..	..	1	..	..	..	..	..	..	1	2	4
Broadway .. ..	..	..	..	..	..	..	..	1	3	3	7
Cecil Street .. ..	..	..	..	..	..	..	2	1	3	9	15
Claude Road .. ..	..	..	..	..	..	..	..	1	1	7	9
Clifton Street .. ..	..	..	..	..	..	..	..	1	1	..	2
Connaught Road.. ..	..	..	..	..	..	..	..	3	..	4	7
Cottrell Road .. ..	..	..	..	..	..	..	2	..	1	5	8
Crofts Street .. ..	..	..	..	..	..	..	..	..	1	1	2
Cyril Crescent .. ..	..	..	..	..	1	..	..	..	..	2	3
Diamond Street .. ..	..	..	..	..	1	..	1	..	2	3	7
Elm Street .. ..	..	..	..	..	..	..	..	1	..	6	7
Emerald Street .. ..	..	..	..	..	2	..	..	2	..	3	7
Fort Street .. ..	..	..	..	..	..	..	..	..	..	1	1
Grouse Street .. ..	..	..	..	..	..	..	..	..	..	1	1
Harold Street .. ..	..	..	..	..	..	..	..	..	..	2	2
Helen Street .. ..	..	..	..	..	..	..	..	1	1	3	5
Newport Road .. ..	..	..	..	..	..	..	..	1	..	3	4
Nora Street .. ..	..	..	..	1	1	..	..	1	..	7	10
Oakfield Street .. ..	..	..	..	..	..	..	..	..	..	6	6
Partridge Road .. ..	..	..	..	..	..	..	..	..	..	2	2
Pearl Street .. ..	..	..	..	..	4	..	1	3	10	10	28
Penylan Road .. ..	..	..	..	..	..	..	..	..	1	4	5
Princes Street .. ..	..	..	..	..	..	..	..	1	..	..	1
Richards Terrace ..	..	..	..	..	1	..	..	1	..	4	6
Rose Street .. ..	..	..	..	..	1	..	..	..	..	..	1
Ruby Street .. ..	..	..	..	..	..	..	..	..	3	3	6
Sapphire Street .. ..	..	..	..	..	..	..	..	..	..	3	3
Spring Gardens Place and Terrace	..	..	..	..	..	..	1	..	..	5	6
Stacey Road .. ..	..	..	..	..	..	..	..	..	..	3	3
Theodora Street .. ..	..	2	..	..	..	..	..	..	1	5	8
Topaz Street .. ..	..	..	..	..	2	..	1	2	..	..	5
Wellfield Place and Road ..	..	..	..	..	..	..	..	..	1	1	2
Woodcock Street.. ..	..	..	..	..	..	..	..	..	..	1	1
Totals .. ..	..	4	..	2	13	..	9	23	34	126	211

GRANGETOWN WARD.

NAME OF STREET.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhoea.	Pathosis.	Respiratory Diseases.	Other Causes.	Total.
Allerton Street	1	..	..	..	4	4	9
Amherst Street	1	2	7	10
Andrews Terrace	1	..	1	2
Bishop Street	1	..	..	..	..	1	..	1	3
Blaenclydach Street	1	..	1	2
Bradford Street	4	4
Bromsgrove Street	4	..	4
Cambridge Street	4	4
Chester Place and Street	1	..	1	..	..	1	..	..	2	5
Clare Road	1	1	3	5
Clive Street	3	2	4	22	31
Clydach Street	1	..	1
Coedcae Street	1	..	1	1	3
Compton Street	3	3
Cornwall Street	3	3
Corporation Road	6	5	11
Court Road	1	..	..	..	..	..	..	1	2	4
Cymmer Street	1	1	..	..	2
Devon Place and Street	1	..	..	1	..	2	2	6
Dorset Street	2	2	5	9
Durham Street	1	..	..	..	1	..	2
Earl Street	1	..	..	..	..	..	..	..	2	3
Ferndale Street	1	1	3	5
Ferry Road	3	3
Franklin Street	1	..	1
Hereford Street	1	..	..	..	..	1	8	10
Hewell Street	1	3	5	9
Holmesdale Street	1	..	..	..	..	2	1	2	4	10
Kent Street	1	..	..	..	..	1	..	1	4	7
Knole Street	2	..	..	2	..	..	..	2	3	9
Llanmaes Street	3	..	..	..	..	1	..	4	5	13
Lacknow Street	1	..	..	1	..	..	2	..	1	5
Ludlow Street	2	2
Madras Street	1	..	..	2	3
Maitland Place	1	..	..	..	..	..	1
Monmouth Street	1	1
Newport Street	2	2
North Street	1	1
North Clive Street	1	2	3
Oakley Street	2	2	4
Paget Street	2	..	1	1	1	4	9
Penarth Road	3	1	3	7	14
Penhevad Street	1	..	..	..	..	..	3	..	3	7
Pentrebane Street	1	..	..	..	1	2	4
Radlaver Street	1	2	1	..	4
Rookwood Street	1	1
Rudry Street	1	..	..	1
Rutland Street	2	1	2	5
Saltmead Road	1	..	..	..	..	2	..	..	4	7
Sanatorium ..	1	..	17	10	..	2	..	..	1	2	33
Seven Oaks Street	1	..	1	1	3
Somer-et Street	2	..	1	3	6
St. Fagan's Street	1	1
Stockland Street...	5	5
Stoughton Street	2	..	2	1	5
Taff Embankment	1	1
Thomas Street	1	..	1
Tynant Street	1	..	..	..	..	..	1	2
Warwick Street	1	..	..	..	1
Wedmore Road	1	..	..	5	6
York Place	1	..	..	..	..	..	1
Totals ..	1	13	18	14	10	2	26	25	60	163	332

SPLOTT WARD.

NAME OF STREET.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhea.	Phthisis.	Respiratory Diseases.	Other Causes.	Total.
Aberdovey Street	1	2	3
Aberystwith Street	4	3	7
Adeline Street	1	..	..	..	1	4	6
Beresford Road Crossing	2	2
Bridgend Street	1	4	5
Burnaby Street	3	3	6
Caerphilly Street	3	3
Cameron Street	1	1
Carlisle Street	1	1	..	..	..	..	2	9	13
Cornelia Street	1	..	1	2
Coveny Street	1	..	..	3	4
East Tyndall Street	1	..	1
Enid Street	1	1
Eyre Street	2	2
Florence Street	1	1	2
Gwendoline Street	1	1
Habershon Street	4	13	17
Hinton Street	1	1
Howard Street	1	..	..	..	1
Janet Street	1	1	3	15	20
Layard Street	1	..	..	..	2	4	7
Llanelly Street	2	1	10	13
Marion Street	2	3	5
Milford Street	1	3	4
Moorland Road	1	1	5	9	16
Ordell Street	1	..	..	..	2	8	11
Pengam Farm	1	..	1
Pontypridd Street	1	1	..	9	11
Portmanmoor Road	1	..	1	..	1	1	4	9	17
Railway Street	1	..	3	1	3	15	23
Sanquhar Street	1	1	2
Seymour Street	1	..	2	3	6
Singleton Street	1	..	..	1	2
Sploft Road	1	..	..	1	3	9	14
Swansea Street	1	5	6
Tenby Street	3	3
Tharsis Copper Works	1	1
Walker Road	1	..	..	..	..	..	1	1	3
Wimborne Street	2	4	6
Total	2	1	1	6	..	11	9	52	167	249

CARDIFF SANATORIUM.

The following report of the Medical Superintendent shows that during the year 1904, 861 cases of infectious disease were under treatment, as compared with 1,157 in the year 1903.

REPORT FOR THE YEAR 1904.				0 to 5 years.	5 to 15 years.	15 to 25 years.	25 to 35 years.	35 to 45 years.	45 to 55 years.	55 to 65 years.	65 to 75 years.	Totals.
Remaining in Hospital on 31st Dec., 1903—												
Scarlet Fever	..	..	..	15	82	4	2	..	..	..	..	103
Enteric Fever	..	..	..	..	4	4	4	2	..	..	..	14
Diphtheria	..	..	..	5	8	2	2	..	..	..	..	17
Totals	..	..	..	20	94	10	8	2	..	..	..	134
Admitted during the year 1904—												
Scarlet Fever	..	..	..	148	299	34	8	1	2	..	..	492
Enteric Fever	..	..	..	6	10	11	3	1	..	..	..	31
Diphtheria	..	..	..	63	96	17	14	1	1	..	..	192
Small-pox	..	..	..	2	1	1	3	3	1	..	1	12
Totals	..	..	..	219	406	63	28	6	4	..	1	727
Totals under treatment in 1904	..	..	..	239	500	73	36	8	4	..	1	861
Of the above there were Discharged—												
(a) Recovered—												
Scarlet Fever	..	..	..	131	327	28	9	1	1	..	..	497
Enteric Fever	..	..	..	2	12	13	9	3	..	..	..	39
Diphtheria	..	..	..	57	88	15	16	1	1	..	..	178
Small-pox	..	..	..	1	1	1	3	3	1	..	1	11
Totals	..	..	..	191	428	57	37	8	3	..	1	725
(b) Died—												
Scarlet Fever	..	..	..	11	4	..	..	..	..	..	..	15
Enteric Fever	..	..	..	..	..	1	1	..	..	..	..	2
Diphtheria	..	..	..	8	3	..	..	..	..	..	..	11
Small-pox	..	..	..	1	..	..	..	..	..	..	..	1
Totals	..	..	..	20	7	1	1	..	..	..	..	29
Remaining in Hospital 31st Dec., 1904—												
Scarlet Fever	..	..	..	21	50	10	1	..	1	..	..	83
Enteric Fever	..	..	..	..	1	1	2	..	..	..	..	4
Diphtheria	..	..	..	3	13	4	..	..	..	..	..	20
Small-pox	..	..	..	..	..	..	..	..	..	..	..	..
Totals	..	..	..	24	64	15	3	..	1	..	..	107
Totals under treatment in 1904	..	..	..	235	499	73	41	8	4	..	1	861

Mortality per cent. under treatment—

Scarlet Fever	..	2.5
Enteric Fever	..	4.4

Diphtheria	..	5.2
Small-pox	..	8.3

B. W. BROAD, M.B., *Medical Superintendent.*

SUMMARY OF WORK PERFORMED BY THE OFFICERS OF THE MEDICAL OFFICER OF HEALTH'S
DEPARTMENT.

The following tables show the nature and extent of the administrative work of the department. The work is carried out by Mr. D. Vaughan, Chief Inspector of Nuisances, and his assistants, acting under the supervision of the Medical Officer of Health, and I have pleasure in reporting that the Inspectors have performed their difficult duties in a very satisfactory manner.

For the purposes of inspection, the Borough is divided into six districts, as follows:—

District No. 1 comprising	..	Canton Ward	..	} W. Fisher, Cert. San. Inst.
		Riverside Ward	..	
„ No. 2 „	..	Sploft Ward	..	} S. Jeffery, Cert. San. Inst.
		part of Adamsdown Ward	..	
„ No. 3 „	..	Park Ward	..	} F. Glover, Cert. San. Inst.
		part of Cathays Ward	..	
„ No. 4 „	..	Central Ward	..	} S. Evans, Cert. San. Inst.
		part of Cathays Ward	..	
		and part of South Ward	..	
„ No. 5 „	..	South Ward	..	} T. W. Warren, Cert. San. Inst.
		Grangetown Ward	..	
„ No. 6 „	..	Roath Ward	..	} J. Strange, Cert. San. Inst.
		part of Adamsdown Ward	..	

HOUSE INSPECTION FOR THE YEAR 1904.

CENTRAL WARD.

NAME OF STREET.	Number of Houses Inspected.	Defective Drains.	Choked Drains.	Defective W.C.	Defective Traps.	Seullery Sinks connected direct with Drain.	Number of Water Closets.	Inside Closets not ventilated.	Outside Water Closets not ventilated.	Outside Closets not supplied with Water.	Dampness of Premises.	Other Nuisances.
Canal Street	31	6	4	..	3	..	24	..	24	23	..	15
Mary Ann Street ..	50	2	2	..	..	..	46	..	45	35	..	12
Stanley Street .. .	2	..	..	..	..	..	2	..	2	2	..	..
Tredegar Street ..	47	1	..	..	1	..	46	..	45	24	..	15
Ruperra Street .. .	16	1	1	..	..	..	16	..	16	13	..	3
Thomas' Court .. .	3	..	..	..	..	..	3	..	3	3	..	..
Rodney Street .. .	18	..	..	1	1	..	18	..	18	17	..	1
Millicent Street ..	61	1	1	4	..	..	57	..	49	31	9	14
Havelock Street ..	46	2	..	..	..	..	46	..	46	46	9	21
Love Lane	35	1	..	1	1	..	34	..	34	7	2	2
Peter's Court .. .	2	..	..	..	..	..	2	..	2	..	..	1
French Cottages ..	4	..	..	..	..	..	3	..	3	..	..	..
Love Lane Court ..	4	..	..	..	..	..	4	..	4	..	..	..

SOUTH WARD.

NAME OF STREET.	Number of Houses Inspected.	Defective Drains.	Choked Drains.	Defective W.C.	Defective Traps.	Seullery Sinks connected direct with Drain.	Number of Water Closets.	Inside Closets not ventilated.	Outside Water Closets not ventilated.	Outside Closets not supplied with Water.	Dampness of Premises.	Other Nuisances.
Eleanor Street .. .	23	2	..	3	1	..	23	..	23	19	..	2
Evelyn Street .. .	29	2	1	..	..	..	31	..	28	10	..	11
Peel Street	38	..	..	..	..	..	38	..	38	24	9	..
Maria Street .. .	46	5	1	8	..	..	49	..	46	23	18	19
Angelina Street ..	41	7	..	4	..	..	41	..	41	38	8	8
Nelson Street .. .	22	2	..	2	..	..	23	..	22	21	3	4
Frances Street .. .	26	5	..	2	..	..	26	..	26	24	6	7
West Church Street	15	4	..	5	..	..	15	..	15	11	8	..

CATHAYS WARD.

NAME OF STREET.	Number of Houses Inspected.	Defective Drains.	Choked Drains.	Defective W.C.	Defective Traps.	Seullery Sinks connected direct with Drain.	Number of Water Closets.	Inside Closets not ventilated.	Outside Water Closets not ventilated.	Outside Closets not supplied with Water.	Dampness of Premises.	Other Nuisances.
Florentia Street ..	66	1	..	3	..	..	66	..	66	66	11	19
Woodville Road ..	35	1	1	4	1	..	35	..	35	27	4	..
Norman Street .. .	16	1	1	3	..	..	16	..	16	16	2	3
Alexander Street ..	23	3	..	2	1	..	23	..	23	21	2	3
Talgarn Street .. .	40	1	1	1	..	..	40	..	29	28	8	14
Daniel Street .. .	61	3	1	4	..	..	61	..	61	61	20	36
Robert Street .. .	70	..	1	8	..	..	70	..	70	68	8	19

PARK WARD.

NAME OF STREET.	Number of Houses Inspected.	Defective Drains.	Choked Drains.	Defective W.C.	Defective Traps.	Seulery Sinks connected direct with Drain.	Number of Water Closets.	Inside Closets not ventilated.	Outside Water Closets not ventilated.	Outside Closets not supplied with Water.	Dampness of Premises.	Other Nuisances.
Russell Street.. ..	45	..	..	..	..	..	45	..	45	45	7	12
Milton Street	66	2	3	3	1	..	67	..	67	65	5	18
Tavistock Street	5	..	..	..	..	..	5	..	4	4	..	..
Penline Street	11	..	..	..	..	..	11	..	11	11	2	3
Bedford Place	11	..	..	..	..	..	11	..	11	11	1	1
Bedford Street	108	2	2	6	..	..	109	..	108	99	7	11
St. Peters Street	18	..	..	..	..	..	18	..	18	14	2	3

ADAMSDOWN WARD.

NAME OF STREET.	Number of Houses Inspected.	Defective Drains.	Choked Drains.	Defective W.C.	Defective Traps.	Seulery Sinks connected direct with Drain.	Number of Water Closets.	Inside Closets not ventilated.	Outside Water Closets not ventilated.	Outside Closets not supplied with Water.	Dampness of Premises.	Other Nuisances.
Buzzard Street	18	1	1	..	..	..	18	..	18	17	1	13
Davis Street	15	..	..	..	..	..	15	..	15	14	2	2
Kyte Street	5	..	..	..	..	..	5	..	..	..	..	4
Sandon Street	18	..	..	1	1	..	16	..	16	14	..	5
Windsor Road	34	..	1	1	..	..	36	..	34	27	..	16
Sandon Place	36	1	1	1	..	..	36	..	36	35	3	13
Pendoylan Street	32	..	1	..	..	..	33	..	33	30	..	19
Roland Street	29	..	..	2	..	..	29	..	29	26	..	12
North William Street	34	..	..	..	..	..	34	..	34	34	..	19
Ellen Street	33	5	4	..	..	..	33	..	33	31	..	6
Rosemary Street	3	..	..	..	..	..	3	..	3	3	..	..
Tyndall Street	43	..	3	7	..	..	55	..	50	35	..	19
Constellation Street	81	..	2	8	2	..	81	..	81	74	..	1
Clifton Street	28	1	1	..	1	..	30	1	23	20	..	6

RIVERSIDE WARD.

NAME OF STREET.	Number of Houses Inspected.	Defective Drains.	Choked Drains.	Defective W.C.	Defective Traps.	Seulery Sinks connected direct with Drain.	Number of Water Closets.	Inside Closets not ventilated.	Outside Water Closets not ventilated.	Outside Closets not supplied with Water.	Dampness of Premises.	Other Nuisances.
Wyndham Street	28	2	..	..	2	..	28	..	28	28	6	8
Heath Street	11	..	..	..	..	..	11	..	11	10	..	..
North Morgan Street	19	3	3	3	3	..	19	..	19	19	..	..
South Morgan Street	35	9	..	9	4	..	35	..	35	35	3	11
Wyndham Place	16	3	..	4	4	3	16	..	16	14	4	7
Blackstone Street	17	3	1	4	2	..	17	..	17	17	5	7
Wells Street	41	5	..	6	4	..	41	..	41	35	6	8

CANTON WARD.

NAME OF STREET.	Number of Houses Inspected.	Defective Drains.	Choked Drains.	Defective W.C.	Defective Traps.	Scullery Sinks connected direct with Drain.	Number of Water Closets.	Inside Closets not ventilated.	Outside Water Closets not ventilated.	Outside Closets not supplied with Water.	Dampness of Premises.	Other Nuisances.
Pontcanna Street	23	..	..	3	..	..	23	..	23	23	4	4
William Street	7	..	..	..	..	..	7	..	7	7	3	3
Wells Street	37	6	..	4	..	..	37	..	37	36	..	4
Rolls Street	42	4	1	2	..	..	42	..	42	42	..	30
Chancery Lane	41	5	..	5	..	..	41	..	41	41	..	21
Lyndhurst Street	40	..	2	1	..	..	40	..	19	19	..	22
Leckwith Road	69	1	..	2	7	..	69	..	60	56	1	24
Ethel Street	103	1	4	13	..	..	103	..	103	101	..	80

ROATH WARD.

NAME OF STREET.	Number of Houses Inspected.	Defective Drains.	Choked Drains.	Defective W.C.	Defective Traps.	Scullery Sinks connected direct with Drain.	Number of Water Closets.	Inside Closets not ventilated.	Outside Water Closets not ventilated.	Outside Closets not supplied with Water.	Dampness of Premises.	Other Nuisances.
Partridge Road	78	15	..	2	15	2	144	1	21	52	4	4
Cyril Crescent.. ..	12	1	..	..	..	..	26	1	3	6	..	1
Diamond Street	70	5	..	2	2	..	71	..	69	68	14	27
Clifton Street	76	7	3	5	2	..	84	1	65	52	3	19
Agate Street	18	2	..	2	..	1	18	..	18	16	5	9
Topaz Street	61	2	..	3	1	2	61	..	61	61	..	9
Nora Street	72	..	..	10	1	..	69	..	67	67	3	1
Helen Street	62	..	1	4	1	..	60	..	60	60	..	8
Ruby Street	57	..	..	3	1	..	57	..	57	57	2	2
Emerald Street	58	..	..	7	3	..	58	..	58	58	3	1

GRANGETOWN WARD.

NAME OF STREET.	Number of Houses Inspected.	Defective Drains.	Choked Drains.	Defective W.C.	Defective Traps.	Scullery Sinks connected direct with Drain.	Number of Water Closets.	Inside Closets not ventilated.	Outside Water Closets not ventilated.	Outside Closets not supplied with Water.	Dampness of Premises.	Other Nuisances.
Hereford Street	58	2	..	12	1	..	56	..	56	56	..	3
Somerset Street	52	..	..	1	2	..	51	..	51	26	1	11
Compton Street	47	1	..	7	..	..	47	..	47	47	..	19
Penarth Road.. ..	44	3	1	2	2	..	46	..	43	40	..	..

SPLOTT WARD.

NAME OF STREET.	Number of Houses Inspected.	Defective Drains.	Choked Drains.	Defective W.C.	Defective Traps.	Scullery Sinks connected direct with Drain.	Number of Water Closets.	Inside Closets not ventilated.	Outside Water Closets not ventilated.	Outside Closets not supplied with Water.	Dampness of Premises.	Other Nuisances.
Ordell Street	86	2	2	5	..	..	84	..	84	84	7	39
Walker Road	61	2	..	3	..	..	60	..	57	28	3	26
Menelaus Street ..	28	1	2	2	..	..	27	..	27	..	1	10
Layard Street	56	2	..	2	1	..	56	..	56	..	2	29
Cornelia Street ..	42	..	1	1	..	..	42	..	42	..	2	10
Elsaine Street	12	..	..	1	..	..	12	..	12	..	..	1
Enid Street	28	3	..	2	1	..	28	..	28	..	..	15
Moorland Road ..	50	1	..	..	1	..	50	..	..	24	..	17
Swansea Street ..	26	..	..	..	..	..	26	..	26	..	..	6
Portmanmoor Road ..	59	..	..	1	..	..	57	..	57	27	4	32

Report to the Medical Officer of Health of Mr. D. Vaughan, Chief Inspector of Nuisances and Inspector of Canal Boats, 1904.

NUISANCES :—

Nuisances inspected	3,159
Notices issued	2,753
Nuisances abated without legal proceedings	3,159
Animals kept so as to be a nuisance	88
Injurious and foul accumulations	280
Nuisances from smoke	12
Stagnant water in cellars, &c.	1
Stagnant water around gullies	3
Defective drainage	716
Drains unstopped and cleansed	332
„ trapped and repaired	25
„ tested	530
„ found defective	258
Foul and offensive w.c.'s cleansed	112
Defective apparatus to water-closets repaired	47
Water laid on to water closets	13
„ „ urinals	5
„ „ dwelling-houses	45
Insufficient ventilation	7
Insufficient heating to workroom	1
Dilapidated houses repaired	870
Dirty houses and workshops cleansed and limewashed	167
Insufficient w.c. accommodation	11
Percolation of water into cellar	4
Want of hood over gas stove	2
Stable used as dwelling	1
Defective boiler chimney	1
Stagnant water on waste land	1

DISINFECTION :—

Houses disinfected	1,151
Articles of bedding and clothing disinfected	14,493
„ „ „ destroyed	311

OFFENSIVE TRADES :—

Premises visited	1,087
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SLAUGHTER HOUSES AND MARKETS :—

Visits paid to slaughter houses	140
Markets	320
Butchers and provision shops inspected	5,333

COWSHEDS, MILKSHOPS AND DAIRIES :—

Number of cowkeepers on register	17
Number of milksellers on register	652

Total 669

Number of cowkeepers registered during the year	95
Number of milksellers registered during the year	95

Number of visits paid to cowsheds	235
„ „ „ milkshops	1,251
Notices served	40

1,526

COWSHEDS, MILKSHOPS, AND DAIRIES.

PARTICULARS OF INSPECTION.	COWSHEDS.	MILKSHOPS.
Total number of inspections	235	1,251
Found in good condition	230	1,216
Water closets, sinks, or drains defective	2	10
Yards badly paved and accumulation of rubbish	3	25
Infectious disease amongst persons employed	—	7

CANAL BOATS.

Number of boats on register	27
" inspections	67
" boats found in good condition	41
" " found with defective ventilators	15
Water vessels defective	6
Certificates cancelled	4
Verbal notices served and complied with	26
Boats licensed	1
Defective roof	4
Defective register	1

MAGISTERIAL PROCEEDINGS.

	NUMBER OF CASES.	FINES.
		£ s. d.
Proceedings under Sale of Food and Drugs Act	12	24 10 0
" " Seamens Bye Laws	4	18 0 0
" " Cowsheds and Milkshops Order .. .. .	..	..
" " Public Health Act, 1875	1	20 0 0
" " Towns Police Clauses Act (Sec. 31)	94	12 10 0
Total	111	£75 0 0

I have the honour to be, Gentlemen,

Your obedient Servant,

EDWARD WALFORD.

MEDICAL OFFICER OF HEALTH.

APPENDIX.

TABLE I.—LOCAL GOVERNMENT BOARD TABLE.
VITAL STATISTICS OF WHOLE DISTRICT DURING 1904 AND PREVIOUS YEARS.

Year.	Population estimated to Middle of each Year.	Births.		Total Deaths Registered in the District.					Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	Net Deaths at all Ages belonging to the District.	
		Number.	Rate.*	Under 1 Year of Age.		At all Ages.						Number.	Rate.*
				Number.	Rate per 1,000 Births registered.	Number.	Rate.*						
1	2	3	4	5	6	7	8	9	10	11	12	13	
1894	139,519	5,100	36.5	722	141	2,415	17.3	263	..	..	2,415	17.3
1895	142,958	5,321	37.1	951	179	2,810	19.9	342	..	..	2,840	19.9
1896	146,479	5,591	38.1	923	165	2,826	19.2	364	31	..	2,795	19.0	
1897	150,087	5,279	35.1	796	151	2,568	17.1	303	34	..	2,534	16.8	
1898	153,753	5,520	35.9	870	158	2,684	17.4	312	57	..	2,627	17.0	
1899	157,414	5,509	33.7	976	184	2,951	18.7	321	93	..	2,858	18.1	
1900	161,452	5,198	32.2	730	141	2,745	17.0	314	78	..	2,667	16.5	
1901	165,308	5,206	31.4	775	148	2,671	16.1	352	75	57	2,653	16.0	
1902	168,909	5,278	31.2	769	145	2,909	17.2	486	88	44	2,865	16.9	
1903	172,598	5,250	30.4	645	122	2,503	14.5	487	96	89	2,496	14.4	
Averages for years 1894-1903 ..	155,847	5,305	34.0	815	153	2,711	17.3	354	..	..	2,675	17.1
1904	176,313	5,208	29.5	751	144	2,704	15.3	458	96	87	2,695	15.2	

* Rates in Columns 4, 8, and 13 are calculated per 1,000 of estimated population.

TABLE II.—LOCAL GOVERNMENT BOARD TABLE.

VITAL STATISTICS OF SEPARATE LOCALITIES IN 1904 AND PREVIOUS YEARS.

NAMES OF LOCALITIES.	COUNTY BOROUGH OF CARDIFF. (Whole District.)				EAST CARDIFF. Registration Sub-District.				CENTRAL CARDIFF. Registration Sub-District.				WEST CARDIFF. Registration Sub-District.			
	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
Year.																
1894 ..	139,519	5,100	2,415	722	..	..	..	..	..	..	..	..	..	..	..	..
1895 ..	142,958	5,321	2,840	951	..	..	..	..	..	..	..	..	..	..	..	..
1896 ..	146,479	5,591	2,795	923	..	..	..	..	..	..	..	..	..	..	..	..
1897 ..	150,087	5,279	2,534	796	43,282	1,736	643	240	54,184	1,528	909	250	50,051	2,015	982	306
1898 ..	153,783	5,550	2,627	870	47,124	1,821	714	288	54,217	1,610	924	279	51,921	2,089	989	303
1899 ..	157,414	5,309	2,858	976	49,040	1,750	753	307	54,300	1,617	1,009	308	53,861	1,942	1,096	361
1900 ..	161,452	5,198	2,667	730	51,035	1,658	755	214	54,358	1,510	907	229	55,874	2,030	1,005	287
1901 ..	165,308	5,206	2,653	775	53,111	1,667	668	226	54,402	1,572	912	255	57,962	1,967	1,073	294
1902 ..	168,909	5,278	2,865	769	56,613	1,694	733	211	54,541	1,624	1,010	230	60,476	1,960	1,122	238
1903 ..	172,598	5,250	2,496	645	57,013	1,643	633	194	54,299	1,561	863	206	61,339	2,046	1,010	245
Averages of Years 1894 to 1903.	155,850	5,305	2,675	815	..	..	..	..	..	..	..	..	..	..	..	..
1904 ..	176,313	5,208	2,695	751	52,585	1,626	719	224	54,402	1,575	884	218	57,433	2,007	1,092	309

LOCAL GOVERNMENT BOARD TABLE.

TABLE III.

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1904.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							TOTAL CASES NOTIFIED IN EACH LOCALITY.				No. of Cases Removed to HOSPITAL FROM EACH LOCALITY.		
	At all Ages.	At Ages--Years						East Cardiff Regis. Sub-Dist.	Central Cardiff Regis. Sub-Dist.	West Cardiff Regis. Sub-Dist.	East Cardiff Regis. Sub-Dist.	Central Cardiff Regis. Sub-Dist.	West Cardiff Regis. Sub-Dist.	
		Under 1.	1 to 5.	5 to 15	15 to 25.	25 to 65.	65 and upwards.							
Small-pox ..	11	1	1	1	1	6	1	2	..	9	2	..	9	
Cholera ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria ..	389	7	112	187	41	42	..	115	142	132	53	93	47	
Membranous Croup ..	17	1	11	5	..	..	..	2	3	12	..	1	..
Erysipelas ..	112	1	3	7	7	87	7	32	33	47	..	..	..
Scarlet Fever ..	658	10	218	378	37	15	..	182	247	229	140	172	165	
Typhus Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever ..	40	..	3	11	12	13	1	9	18	13	7	10	6	
Relapsing Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever ..	2	..	..	1	1	..	..	1	..	1	..	..	..
Puerperal Fever ..	12	..	..	..	3	9	..	5	2	5	..	..	..
Plague ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals ..	1,241	20	348	590	102	172	9	348	445	448	202	276	228	

LOCAL GOVERNMENT BOARD TABLE.

TABLE IV.

CAUSES OF, AND AGES AT, DEATH DURING YEAR 1904.

CAUSES OF DEATH.	DEATHS IN OR BELONGING TO WHOLE DISTRICT AT SUBJOINED AGES.							Deaths in or belonging to Localities (at all Ages).			Total Deaths in Public Institutions in the District.
	All Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	East Cardiff Reg. Sub.-dis.	Central Cardiff Reg. Sub.-dis.	West Cardiff Reg. Sub.-dis.	
Small-pox	1	1	..	..	..	..	..	..	..	1	1
Measles	64	22	39	3	..	..	..	14	16	34	9
Scarlet Fever	25	..	16	8	1	..	..	1	6	18	17
Whooping-cough	61	31	26	3	1	..	..	24	16	21	..
Diphtheria and Membranous Croup	31	5	22	4	..	..	..	3	9	19	12
Croup	2	1	1	..	..	..	..	..	..	2	..
Fever { Typhus .. .. .	..	..	..	..	..	..	..	..	..	..	..
Enteric	9	..	1	1	3	4	..	1	4	4	3
Other continued .. .. .	..	..	..	..	..	..	..	..	..	..	..
Epidemic Influenza	13	..	2	..	..	5	6	5	6	2	..
Diarrhoea	129	105	15	2	..	5	2	26	34	69	6
Enteritis	35	25	2	1	..	4	3	20	10	5	1
Puerperal Fever	3	..	..	..	1	2	..	1	1	1	..
Erysipelas	3	..	..	1	..	1	1	..	2	1	..
Other Septic Diseases	9	6	..	1	..	2	..	3	3	3	4
Phthisis	246	4	4	10	43	183	2	59	79	108	57
Other Tubercular Diseases ..	98	34	21	19	8	15	1	30	25	43	10
Cancer, Malignant Disease ..	109	1	..	..	4	84	20	26	38	45	40
Bronchitis	181	44	16	3	2	56	60	57	55	69	15
Pneumonia	238	74	58	15	13	62	16	60	70	108	14
Pleurisy	16	..	..1	1	1	10	3	2	9	5	2
Other Diseases of Respiratory Organs	14	1	4	1	2	5	1	6	5	3	7
Alcoholism	15	..	..	..	..	14	1	2	8	5	2
Cirrhosis of Liver .. .. .	..	..	..	..	..	..	..	..	..	..	..
Venereal Diseases	11	5	..	..	1	5	..	1	2	8	5
Premature Birth	78	78	..	..	..	..	..	26	20	32	6
Diseases and Accidents of Parturition	12	..	..	..	3	9	..	2	6	4	..
Heart Diseases	303	16	4	8	16	160	99	83	93	127	37
Accidents	84	10	9	9	10	32	14	12	54	18	45
Suicides	8	..	..	..	2	5	1	1	6	1	2
Homicide	2	..	..	..	1	1	..	1	1	..	..
Wilful Murder	2	..	..	..	..	2	..	1	..	1	..
WeatherAgencies,Sunstroke ..	1	..	..	..	1	..	..	..	..	1	..
General Paralysis	31	..	..	..	1	26	4	10	13	8	..
Other forms of Insanity	21	..	..	..	..	18	3	4	14	3	..
All Other Causes	840	288	39	27	16	239	231	238	279	323	163
All Causes	2,695	751	280	117	130	949	468	719	884	1,092	458

METEOROLOGICAL OBSERVATIONS FOR THE YEAR 1904.

MONTH.	Attached Thermometer.	Barometer. Inches.	TEMPERATURE IN SHADE.							HYGROMETER.			RAINFALL.				DEATH-RATE per 1,000.	
			Maximum.	Minimum.	Mean of Maximum.	Mean of Minimum.	Mean of Month.	Earth.		Dry Bulb Mean.	Wet Bulb Mean.	Relative Humidity.	Amount in Inches.	Greatest Fall in 24 hours.	Date of Greatest Fall.	Days on which 0.01 or more rain fell.	All Causes.	Zymotic Chief Diseases.
								1 foot mean.	4 feet mean.									
January	55	29.900	53.0	24.0	42.6	34.5	38.5	41.2	47.1	40.4	39.1	88	5.60	.89	11th	26	18.4	1.9
February	56	29.900	52.5	23.5	44.4	33.7	39.0	40.2	46.4	32.4	30.6	78	5.81	.78	10th	24	15.2	1.9
March	58	29.968	58.0	25.0	47.0	33.7	40.3	41.8	42.5	40.6	38.4	82	2.97	.65	7th	19	17.8	1.7
April	58	29.922	62.2	31.0	54.2	41.5	47.8	48.0	48.1	49.4	45.6	74	2.44	.35	29th	21	14.7	1.3
May	59	29.870	70.0	34.8	59.0	43.9	51.4	53.2	51.7	52.7	49.3	78	3.05	.53	24th	23	13.9	1.2
June	63	30.001	72.9	40.0	66.0	48.4	57.2	58.5	55.2	57.8	53.8	76	1.29	.58	14th	9	11.7	1.4
July	68	29.993	82.1	44.5	71.1	54.9	63.0	63.0	58.0	63.3	60.1	81	4.13	1.59	25th	19	10.5	1.3
August	64	29.990	80.1	41.5	70.6	49.7	60.1	61.7	59.4	60.9	58.8	88	3.56	.69	22nd	17	16.7	5.8
September	62	31.008	69.1	38.2	63.3	46.7	55.0	58.0	57.7	56.2	53.3	82	3.49	.70	14th	13	15.3	2.5
October	59	30.051	62.6	33.0	57.0	44.4	50.7	54.4	56.1	50.7	48.8	88	2.48	.85	16th	18	11.3	1.0
November	58	30.041	57.2	18.0	49.5	34.6	42.0	48.6	53.0	41.1	40.1	92	3.50	.80	6th	15	12.6	1.0
December	56	29.911	56.2	25.0	45.9	35.7	40.8	44.2	48.4	41.1	39.7	88	3.40	.67	5th	25	18.4	0.6

50.8
 41.7
 4.6

Mean temperature of each month in the year, during the ten years 1895-1904.

MONTH.	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904
January	35°5	41°6	35°9	44°0	42°2	36°5	37°9	36°5	40°5	38°5
February	29°3	40°8	43°5	41°3	41°3	39°8	37°8	36°1	45°1	39°0
March	41°6	45°9	44°6	41°1	42°1	38°3	40°6	43°8	45°9	40°3
April	47°9	48°0	46°3	46°6	47°2	46°6	46°9	42°7	44°5	47°8
May	54°4	52°9	49°1	49°9	52°0	50°4	53°5	48°8	58°0	51°4
June	58°5	61°4	59°5	55°9	59°8	55°3	57°3	56°8	54°9	57°2
July	60°0	61°4	62°7	60°6	63°8	63°9	64°2	58°8	56°9	63°0
August	59°0	58°6	60°9	61°5	68°3	59°8	60°0	58°7	58°1	60°1
September	59°7	56°8	54°4	58°8	57°8	55°5	57°7	55°2	55°8	55°0
October	46°7	46°2	51°2	52°7	48°9	49°1	49°7	50°1	52°1	50°7
November	47°2	39°9	46°1	45°7	47°0	44°5	41°5	43°3	50°4	42°0
December	40°0	40°0	42°5	46°7	37°3	43°5	40°9	40°2	39°0	40°8

The following table illustrates the daily direction of wind throughout the year 1904.

Direction of Wind.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year 1904
N. .. .. .	..	..	..	1	..	..	..	..	..	..	..	1	2
N.E.	5	1	21	2	3	10	9	5	12	10	9	9	96
N.W.	7	1	..	4	3	1	1	1	1	5	9	5	38
S. .. .. .	..	..	..	2	..	..	1	..	1	..	..	..	4
S.E.	1	12	1	..	8	6	13	9	9	4	..	2	65
S.W.	15	15	8	18	12	8	5	13	6	7	12	11	130
E. .. .. .	..	..	1	..	2	..	..	..	1	4	..	1	9
W.	3	..	..	3	3	5	2	3	..	1	..	2	22

TABLE SHOWING RAINFALL AT CARDIFF IN EACH MONTH, DURING THE TWENTY-NINE YEARS, 1876-1904.

YEAR.	JANUARY.				FEBRUARY.				MARCH.			
	Rainfall in Month. Inches.	Days on which 0.01 or more rain fell	Greatest fall in 24 hours.	Date of greatest fall.	Rainfall in Month. Inches.	Days on which 0.01 or more rain fell	Greatest fall in 24 hours.	Date of greatest fall.	Rainfall in Month. Inches.	Days on which 0.01 or more rain fell	Greatest fall in 24 hours.	Date of greatest fall.
1876	1.91	12	0.68	2nd	5.23	22	0.90	14th	3.92	22	0.54	9th
1877	5.77	27	0.72	3rd	2.79	20	0.42	11th	2.66	21	0.55	23rd
1878	1.73	17	0.36	27th	3.07	16	0.87	27th	1.25	18	0.40	28th
1879	5.95	10	1.30	1st	5.95	23	0.86	20th	1.14	14	0.32	23rd
1880	0.87	11	0.42	13th	3.88	22	1.06	18th	1.90	12	0.75	2nd
1881	0.92	12	0.23	26th	4.81	15	1.12	9th	3.88	16	0.68	3rd
1882	3.19	13	0.82	2nd	2.56	15	0.60	28th	2.26	19	0.32	1st
1883	5.75	25	1.11	24th	3.73	20	0.65	10th	0.60	10	0.12	19th
1884	6.03	21	0.99	31st	4.40	22	1.35	17th	3.39	16	1.27	3rd
1885	3.71	20	0.58	9th	3.65	22	0.67	26th	1.87	16	0.53	29th
1886	5.03	23	0.91	30th	1.32	11	0.62	28th	3.97	13	0.68	20th
1887	2.76	15	0.73	7th	1.45	6	0.73	3rd	3.21	10	1.16	15th
1888	1.70	12	0.49	1st	1.07	9	1.09	2nd	4.62	15	0.76	24th
1889	1.58	10	0.58	9th	2.00	16	0.64	10th	3.89	16	1.17	8th
1890	5.21	24	0.61	26th	0.55	7	0.22	19th	1.52	14	0.28	24th
1891	3.58	13	1.26	23rd	0.05	2	0.03	2nd	1.76	16	0.31	15th
1892	2.10	15	0.70	16th	2.38	19	0.58	20th	1.18	6	0.48	15th
1893	2.38	19	0.94	12th	6.04	22	0.95	25th	0.31	6	0.14	2nd
1894	3.20	23	0.44	19th	3.68	20	0.78	17th	3.37	13	0.82	1st
1895	3.88	20	0.71	19th	0.17	4	0.08	24th	3.92	21	0.85	27th
1896	0.64	6	0.40	24th	1.39	9	0.80	13th	4.47	24	0.54	7th
1897	3.78	17	0.50	31st	5.73	21	0.70	4th	6.29	19	0.90	31st
1898	1.96	10	0.48	10th	1.71	17	0.22	18th	1.12	9	0.53	6th
1899	5.50	20	1.03	20th	3.89	13	0.79	4th	1.39	6	0.88	25th
1900	5.81	23	1.26	6th	6.40	20	0.99	18th	1.06	6	0.33	21st
1901	2.48	17	0.59	26th	1.01	10	0.25	26th	2.10	12	0.31	6th
1902	6.60	18	0.72	3rd	1.25	9	0.40	22nd	2.58	13	0.54	14th
1903	5.81	24	1.69	4th	2.19	20	0.48	24th	5.80	26	0.65	1st
1904	5.60	26	0.89	11th	5.81	24	0.78	10th	2.97	19	0.65	7th

TABLE SHOWING RAINFALL AT CARDIFF IN EACH MONTH, DURING THE TWENTY-NINE YEARS, 1876—1904.

YEAR.	APRIL.				MAY.				JUNE.			
	Rainfall in Month, Inches.	Days on which 0.01 or more rain fell.	Greatest fall in 24 hours.	Date of greatest fall.	Rainfall in Month, Inches.	Days on which 0.01 or more rain fell.	Greatest fall in 24 hours.	Date of greatest fall.	Rainfall in Month, Inches.	Days on which 0.01 or more rain fell.	Greatest fall in 24 hours.	Date of greatest fall.
1876	1.91	17	0.38	28th	0.23	4	0.12	24th	1.91	9	0.52	15th
1877	2.90	20	0.52	20th	2.47	14	0.99	16th	1.48	12	0.41	1st
1878	4.10	21	0.75	9th	4.32	24	0.71	16th	3.68	15	1.05	16th
1879	2.64	17	0.73	19th	2.85	15	0.88	29th	6.48	23	1.64	30th
1880	1.98	13	0.40	5th	1.45	11	0.46	26th	2.38	19	0.53	17th
1881	1.44	7	0.60	13th	2.62	10	1.73	17th	3.59	18	0.63	16th
1882	5.68	20	0.60	12th	2.72	13	0.59	22nd	4.28	20	0.82	5th
1883	0.67	7	0.28	26th	1.90	12	0.70	11th	1.81	17	1.16	27th
1884	1.56	11	0.43	3rd	2.37	14	0.50	2nd	1.92	9	1.11	28th
1885	2.52	16	0.67	1st	3.86	27	0.71	19th	2.61	13	1.04	23rd
1886	2.98	15	0.73	7th	6.38	19	1.52	31st	0.70	7	0.28	1st
1887	1.63	10	0.45	26th	1.94	14	0.63	19th	0.60	4	0.51	2nd
1888	1.48	13	0.30	17th	1.69	8	0.40	17th	3.09	17	0.74	17th
1889	3.54	18	0.71	30th	2.51	16	0.38	31st	0.58	6	0.41	1st
1890	1.80	14	0.34	6th	1.93	13	0.66	9th	2.46	17	0.40	10th
1891	2.02	11	0.40	2nd	3.41	17	0.75	21st	2.47	12	1.30	24th
1892	1.27	9	0.43	20th	1.35	11	0.66	27th	1.93	10	0.61	28th
1893	0.29	5	0.16	1st	2.80	12	0.72	19th	0.67	9	0.23	22nd
1894	2.05	15	0.41	23rd	2.18	15	0.50	15th	2.43	16	0.64	3rd
1895	2.08	12	0.55	24th	0.50	3	0.41	31st	1.15	9	0.32	30th
1896	2.83	14	0.39	15th	9.22	3	0.14	13th	2.48	11	1.00	7th
1897	8.18	20	0.90	13th	2.29	8	0.50	29th	5.02	11	0.90	8th
1898	1.40	10	0.28	11th	4.80	20	0.80	11th	5.06	14	0.90	4th
1899	4.34	18	0.92	20th	2.49	12	0.78	19th	1.17	5	0.45	30th
1900	1.62	12	0.42	3rd	1.89	13	0.37	21st	1.73	14	0.27	14th
1901	4.54	14	0.91	3rd	0.91	5	0.42	30th	3.00	9	1.22	20th
1902	2.36	9	0.54	4th & 14th	2.43	21	0.55	16th	2.86	20	0.45	12th
1903	2.48	16	0.75	25th	4.48	21	1.39	8th	3.11	15	0.90	9th
1904	2.44	21	0.35	20th	3.05	23	0.53	24th	1.29	9	0.58	14th

TABLE SHOWING RAINFALL AT CARDIFF IN EACH MONTH, DURING TWENTY-NINE YEARS, 1876—1904.

YEAR.	JULY.					AUGUST.					SEPTEMBER.				
	Rainfall in Month. Inches.	Days on which 0.01 or more rain fell	Greatest fall in 24 hours.	Date of greatest fall.	Rainfall in Month. Inches.	Days on which 0.01 or more rain fell.	Greatest fall in 24 hours.	Date of greatest fall.	Rainfall in Month. Inches.	Days on which 0.01 or more rain fell.	Greatest fall in 24 hours.	Date of greatest fall.	Rainfall in Month. Inches.	Days on which 0.01 or more rain fell.	Date of greatest fall.
1876	1.91	10	0.41	6th	6.06	27	2.72	19th	7.08	19	1.28	30th	7.08	19	1.28
1877	4.94	18	1.27	14th	5.70	21	1.42	27th	3.25	8	1.39	27th	3.25	8	1.39
1878	2.01	9	0.78	23rd	10.82	24	3.64	15th	3.21	9	1.28	22nd	3.21	9	1.28
1879	4.00	21	0.81	19th	8.12	22	1.34	27th	4.85	17	0.69	7th	4.85	17	0.69
1880	6.64	23	0.95	17th	0.77	7	0.27	2nd	3.67	15	0.77	17th	3.67	15	0.77
1881	2.62	15	0.77	30th	6.94	20	1.45	22nd	2.09	13	0.48	22nd	2.09	13	0.48
1882	5.77	24	0.84	6th	6.75	16	1.14	22nd	3.94	17	0.79	28th	3.94	17	0.79
1883	3.56	21	0.82	20th	2.09	16	0.73	8th	6.14	19	1.53	23rd	6.14	19	1.53
1884	4.05	20	0.94	23rd	2.21	9	0.84	31st	1.96	15	0.64	21st	1.96	15	0.64
1885	0.72	6	0.31	18th	2.74	12	1.07	6th	6.51	23	1.76	10th	6.51	23	1.76
1886	4.85	17	0.71	29th	1.68	9	0.44	9th	4.08	14	0.75	4th	4.08	14	0.75
1887	1.51	13	0.85	26th	2.88	11	1.02	16th	4.07	17	1.24	1st	4.07	17	1.24
1888	6.83	25	1.16	7th	3.50	17	0.74	29th	1.21	8	0.52	27th	1.21	8	0.52
1889	3.85	12	1.16	9th	3.90	15	0.65	2nd	2.09	9	1.53	23rd	2.09	9	1.53
1890	3.57	19	0.73	17th	3.95	20	0.95	9th	1.57	11	0.50	17th	1.57	11	0.50
1891	2.21	17	0.36	2nd	7.19	22	1.10	26th	2.43	19	0.51	3rd	2.43	19	0.51
1892	3.83	9	1.50	12th	4.64	16	1.62	27th	3.95	14	1.38	29th	3.95	14	1.38
1893	3.88	17	0.80	10th	3.05	14	0.52	20th	2.03	15	0.89	28th	2.03	15	0.89
1894	4.22	20	0.97	24th	4.55	18	1.55	25th	2.22	10	0.80	22nd	2.22	10	0.80
1895	4.71	15	0.94	23rd	4.08	17	1.19	12th	1.17	10	0.40	6th	1.17	10	0.40
1896	1.14	8	0.35	24th	2.89	15	0.84	19th	7.34	23	1.10	17th	7.34	23	1.10
1897	2.51	8	0.80	6th	5.42	16	1.30	30th	6.37	13	1.38	29th	6.37	13	1.38
1898	0.40	2	0.20	1st	3.48	10	0.67	6th	1.94	4	0.74	26th	1.94	4	0.74
1899	0.32	6	0.09	1st	1.74	7	0.56	29th	2.59	13	0.74	26th	2.59	13	0.74
1900	0.68	8	0.27	27th	4.06	14	0.88	9th	1.32	10	0.50	26th	1.32	10	0.50
1901	2.58	8	1.00	23rd	4.00	14	1.30	13th	4.36	17	1.52	13th	4.36	17	1.52
1902	2.19	15	0.77	19th	4.21	23	0.68	14th	3.13	15	0.86	10th	3.13	15	0.86
1903	3.53	16	1.06	17th	5.84	26	0.72	23rd	3.73	21	0.92	28th	3.73	21	0.92
1904	4.13	19	1.69	25th	3.56	17	0.69	22nd	3.49	13	0.70	14th	3.49	13	0.70

TABLE SHOWING RAINFALL AT CARDIFF IN EACH MONTH, DURING THE TWENTY-NINE YEARS, 1876-1904.

YEAR.	OCTOBER.				NOVEMBER.				DECEMBER.				YEAR.
	Rainfall in Month. Inches.	Days on which 0.01 or more rain fell.	Greatest fall in 24 hours.	Date of Greatest fall.	Rainfall in Month. Inches.	Days on which 0.01 or more rain fell.	Greatest fall in 24 hours.	Date of Greatest fall.	Rainfall in Month. Inches.	Days on which 0.01 or more rain fell.	Greatest fall in 24 hours.	Date of Greatest fall.	
1876	3.84	17	0.62	16th	5.27	18	0.75	12th	7.13	23	0.80	17th	46.62
1877	4.89	16	1.15	24th	6.54	25	1.06	24th	3.40	25	0.88	28th	46.79
1878	5.76	18	1.09	23rd	5.76	13	0.84	9th	2.70	10	0.75	28th	45.71
1879	1.51	12	0.35	19th	0.43	8	0.18	20th	2.11	9	0.79	31st	44.79
1880	4.94	15	1.45	25th	3.67	15	0.90	15th	6.70	20	1.09	14th	38.85
1881	3.23	13	0.72	22nd	4.98	23	0.65	26th	4.50	45	1.77	7th	41.62
1882	8.33	23	1.64	23rd	6.26	21	0.90	7th	4.86	25	0.73	31st	56.60
1883	4.23	17	0.61	15th	6.38	24	0.80	21st	1.92	17	0.57	10th	38.78
1884	1.01	17	0.35	8th	2.12	16	0.47	30th	5.87	20	0.68	5th	36.89
1885	5.59	22	1.60	22nd	5.47	16	1.11	27th	1.74	17	0.05	5th	40.99
1886	5.09	21	0.87	15th	5.39	21	1.03	5th	6.64	21	1.33	26th	48.11
1887	2.80	13	1.14	29th	3.48	21	0.69	3rd	3.46	20	0.75	12th	29.79
1888	1.74	11	0.52	28th	7.04	26	1.13	12th	3.61	16	0.88	27th	38.18
1889	3.77	25	0.48	8th	1.87	12	0.75	24th	2.40	14	0.80	21st	31.38
1890	1.92	16	0.41	7th	3.89	20	0.67	6th	0.80	4	0.33	18th	29.23
1891	7.12	22	1.32	18th	3.91	15	0.74	28th	6.19	19	0.78	30th	42.34
1892	2.64	15	0.51	27th	3.25	18	0.66	4th	2.23	12	0.62	1st	22.63
1893	5.98	21	1.29	4th	2.30	13	0.58	1st	4.18	19	0.94	12th	33.91
1894	4.91	14	1.05	24th	4.72	20	0.83	13th	3.66	20	0.51	17th	41.19
1895	3.67	15	0.94	3rd	4.21	23	0.60	5th	3.45	31	0.48	17th	32.64
1896	4.65	19	0.74	5th	0.96	5	0.60	15	6.41	22	0.72	4th	35.42
1897	3.22	7	0.90	2nd	1.82	7	0.63	27th	6.06	18	1.19	7th	56.80
1898	7.30	18	1.13	17th	7.46	16	1.39	23rd	5.44	17	1.03	6th	42.07
1899	2.34	12	0.60	27th	3.29	11	0.95	9th	3.69	19	0.86	28th	32.75
1900	5.79	21	1.06	29th	4.99	22	0.71	24th	6.55	26	1.06	30th	41.90
1901	2.64	21	0.37	1st	1.50	8	0.51	11th	7.15	21	0.99	7th & 28th	36.27
1902	3.88	21	0.96	21st	4.97	20	1.30	8th	3.95	18	0.83	28th	36.41
1903	11.06	31	2.16	14th	2.40	19	0.53	27th	4.24	21	0.69	8th	54.97
1904	2.48	18	0.85	16th	3.50	15	0.80	6th	3.40	25	0.67	5th	41.72

COUNTY BOROUGH OF CARDIFF.

DEATHS FROM SPECIFIED CAUSES AT ALL AGES, AND AT SIX GROUPS OF AGES,

During the Year ending 31st December, 1904. Estimated Population, 176,313.

CAUSES OF DEATH.	0 to 1		1 to 5		5 to 15		15 to 25		25 to 65		65 and upwards.		ALL AGES.			Rate per 1,000 living.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.	
ALL CAUSES.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.	
Small-pox (unvaccinated)	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1	0.00
Measles	12	10	23	16	1	2	..	..	..	..	..	..	36	28	64	0.36
Scarlet Fever .. .. .	..	..	9	7	5	3	1	..	..	..	..	..	15	10	25	0.14
Epidemic Influenza .. .. .	..	..	1	1	..	..	..	..	4	2	3	2	8	5	13	0.07
Whooping Cough	16	15	10	16	2	1	..	1	..	..	..	..	28	33	61	0.34
Diphtheria, Membranous Croup	5	..	13	9	3	1	..	..	..	..	..	..	21	10	31	0.17
Enteric Fever .. .. .	..	..	1	..	..	1	2	2	2	..	..	..	4	5	9	0.05
Diarrhoea, Dysentery	36	28	6	1	1	..	..	..	4	1	1	1	48	37	85	0.48
Epidemic or Zymotic Enteritis	25	16	3	..	..	..	..	..	..	..	..	..	28	16	44	0.24
Syphilis	4	1	..	..	..	..	..	1	2	..	..	..	5	3	8	0.04
Gonorrhoea .. .. .	..	..	..	..	..	..	..	1	2	..	..	..	2	1	3	0.01
Erysipelas .. .. .	..	..	..	..	1	..	..	1	2	..	..	..	3	..	3	0.01
Puerperal Fever .. .. .	..	..	..	..	..	..	..	1	2	..	..	..	3	3	6	0.03
Pyæmia, Septicæmia:	1	..	..	..	1	..	..	..	1	2	..	..	2	1	3	0.01
Other Allied Diseases	4	1	..	..	..	..	..	1	..	..	..	..	5	1	6	0.03
Malarial Fever .. .. .	..	..	..	..	1	..	..	1	..	..	..	..	1	..	1	0.00
Rheumatic Fever .. .. .	..	..	..	..	1	..	..	1	3	..	..	..	2	3	5	0.02
Tuberculosis of Brain or Meninges, Acute Hydrocephalus	4	4	11	4	6	5	..	1	1	..	..	..	22	14	36	0.20
Tuberculosis of Lungs, Phthisis, Phthisis Pulmonalis	2	2	3	1	3	7	22	20	103	75	2	..	135	105	240	1.36
Tuberculosis of Intestines, Tabes Mesenterica	8	10	2	1	..	1	..	..	1	..	..	..	10	13	23	0.13
General Tuberculosis, Tubercular Disease of Undefined position	2	3	3	..	2	3	3	1	7	4	1	1	18	12	30	0.17
Other forms of Tuberculosis, Scrofula	2	1	..	..	2	..	1	1	7	4	..	..	7	2	9	0.05
Acute Alcoholism, Delirium Tremens .. .. .	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1	0.00
Chronic Alcoholism .. .. .	..	..	..	..	..	..	..	3	..	..	..	..	3	..	3	0.01
Chronic Industrial Poisoning .. .. .	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1	0.00
Other Chronic Poisonings .. .. .	..	..	..	..	..	..	..	4	1	..	..	..	1	1	2	0.00
Osteo-arthritis, Rheumatoid Arthritis .. .. .	..	..	..	..	..	..	..	4	3	2	1	..	6	4	10	0.05
Cancer	1	..	..	..	..	1	2	33	50	12	8	..	46	61	107	0.60
Diabetes Mellitus .. .. .	..	..	..	..	..	1	..	7	5	2	2	9	8	17	0.09	
Purpura Hemorrhagica .. .. .	..	..	..	..	1	..	..	..	..	..	..	..	1	1	2	0.00
Hæmophilia .. .. .	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1	0.00
Anæmia, Leucocythæmia .. .. .	..	1	1	..	2	..	..	4	3	..	1	7	5	12	0.06	
Premature Birth	44	34	..	..	..	..	..	..	..	..	..	..	44	34	78	0.44
Injury at Birth	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1	0.00
Debility at Birth	43	35	..	..	..	..	..	..	..	..	..	..	43	35	78	0.44
Atelectasis	2	..	..	..	..	..	..	..	..	..	..	..	2	..	2	0.01
Congenital Defects	2	8	1	..	..	..	..	..	..	..	..	..	3	8	11	0.06
Want of Breast Milk	1	3	..	..	..	..	..	..	..	..	..	..	1	3	4	0.02
Atrophy, Debility, Marasmus	10	12	1	1	..	..	..	2	..	1	1	14	14	28	0.15	
Dentition	3	7	1	1	..	..	..	..	..	..	..	..	4	8	12	0.06
Rickets	3	4	1	4	..	..	..	..	..	..	..	..	4	8	12	0.06
Old Age, Senile Decay .. .. .	..	..	..	..	..	..	..	4	66	70	66	74	140	74	214	0.79
Convulsions	50	35	6	3	..	..	..	..	1	..	..	..	57	38	95	0.53
Meningitis	7	6	4	4	1	6	1	5	1	..	1	18	18	36	0.20	
Encephalitis .. .. .	..	..	4	4	..	1	..	1	..	..	..	..	2	..	2	0.01
Apoplexy .. .. .	..	..	..	..	..	..	..	1	7	6	9	7	16	13	29	0.16
Softening of Brain .. .. .	..	..	..	..	..	..	..	3	1	1	1	4	2	6	12	0.06
Hemiplegia, Brain Paralysis .. .. .	..	..	..	..	..	..	1	4	1	1	3	5	10	5	15	0.08
General Paralysis of Insane .. .. .	..	..	..	..	..	..	..	2	1	..	..	..	2	1	3	0.01
Other forms of Insanity .. .. .	..	..	..	..	..	..	..	..	..	..	1	..	1	1	2	0.00
Chorea .. .. .	..	..	..	..	1	..	1	..	..	..	..	..	2	2	4	0.01
Cerebral Tumour .. .. .	..	..	..	..	..	..	..	2	..	..	..	..	2	..	2	0.01
Epilepsy .. .. .	..	..	..	1	1	..	..	1	1	1	..	3	2	5	0.02	
Laryngismus Stridulus	2	1	1	..	..	..	..	..	..	..	..	..	3	2	5	0.12
Locomotor Ataxy .. .. .	..	..	1	..	..	..	..	..	..	..	..	..	3	..	3	0.01
Paraplegia, Diseases of Spinal Cord .. .. .	..	..	..	1	2	..	..	9	6	2	..	12	8	20	0.11	
Other and ill-defined Diseases of Brain and Nervous System	2	..	..	2	..	1	3	3	..	1	3	9	12	21	0.06	
Otitis, Otorrhoea	4	1	..	..	..	1	1	1	1	..	..	..	6	3	9	0.05
Endocarditis, Valvular Diseases of the Heart .. .. .	..	1	..	..	1	2	3	2	20	9	7	3	31	17	48	0.27
Angina Pectoris .. .. .	..	..	..	..	..	..	..	1	1	1	..	3	1	4	0.02	
Anæurism .. .. .	..	..	..	..	..	..	..	5	1	1	1	6	1	7	0.03	
Senile Gangrene .. .. .	..	..	..	..	..	..	..	1	1	..	1	1	2	3	5	0.01
Embolism, Thrombosis .. .. .	..	..	..	..	..	..	..	3	3	..	1	3	4	7	11	0.06
Other and ill-defined Diseases of Heart and Circulatory System	7	5	3	3	2	3	5	6	62	58	42	45	121	120	241	1.36
Laryngitis .. .. .	..	..	2	..	..	2	..	1	..	..	..	..	4	1	5	0.02
Croup	1	..	1	1	..	..	..	..	..	..	..	..	3	..	3	0.01
Other Diseases of Larynx and Trachea .. .. .	..	..	2	..	..	..	..	..	..	..	..	..	2	..	2	0.01
Acute Bronchitis	27	17	8	7	..	3	1	1	5	4	3	2	44	34	78	0.44
Chronic Bronchitis .. .. .	..	..	1	..	..	..	1	24	23	26	26	50	51	101	0.57	
Lobar, Croupous, Acute Pleuro-Pneumonia	3	3	1	1	3	..	3	2	4	6	1	1	15	13	28	0.15
Lobular, Catarrhal, Broncho-Pneumonia	25	26	19	20	4	1	2	1	5	3	2	2	57	53	110	0.62
Pneumonia, form not stated	9	9	8	8	3	4	3	2	29	13	8	4	60	40	100	0.50
Emphysema, Asthma .. .. .	..	..	1	1	..	1	..	7	2	..	4	10	6	16	0.09	
Pleurisy .. .. .	..	..	1	1	..	1	..	7	2	..	4	10	6	16	0.09	
Other and ill-defined Diseases of Respiratory System	1	..	..	..	..	..	..	3	..	..	..	4	4	8	0.02	
Diseases of Mouth and Annæa .. .. .	..	..	..	..	..	..	..	1	..	..	..	..	1	1	2	0.00
Diseases of Pharynx .. .. .	..	..	..	1	..	..	..	..	..	..	..	..	1	1	2	0.00
Diseases of Oesophagus .. .. .	..	..	..	..	..	..	..	1	2	6	2	4	7	11	0.06	
Ulcer of Stomach and Duodenum .. .. .	..	..	..	..	..	..	1	4	1	2	1	16	15	31	0.17	
Other Diseases of Stomach	10	12	..	..	..	..	..	3	1	3	..	19	16	35	0.19	
Enteritis	12	13	1	1	..	1	..	3	1	3	..	3	4	7	0.03	
Appendicitis .. .. .	..	..	..	1	1	1	..	2	2	..	..	..	3	4	7	0.03
Obstruction of Intestine	1	1	1	..	..	2	..	6	9	1	3	11	13	24	0.13	
Cirrhosis of Liver .. .. .	..	..	..	..	..	..	..	5	5	1	..	6	5	11	0.06	
Other Diseases of Liver	3	2	..	..	..	..	..	4	3	3	2	10	7	17	0.09	
Peritonitis .. .. .	..	..	1	..	..	..	..	2	2	..	1	2	4	6	0.03	
Other and ill-defined Diseases of Digestive System	3	..	1	..	1	..	..	2	..	..	1	5	3	8	0.04	
Diseases of Lymphatic System and Ductless Glands	1	..	..	..	..	..	..	1	1	..	..	2	1	3	0.01	
Acute Nephritis .. .. .	..	1	1	2	..	1	2	12	5	2	2	17	11	28	0.15	
Bright's Disease																

Meteorological Observations taken at Roath Park.

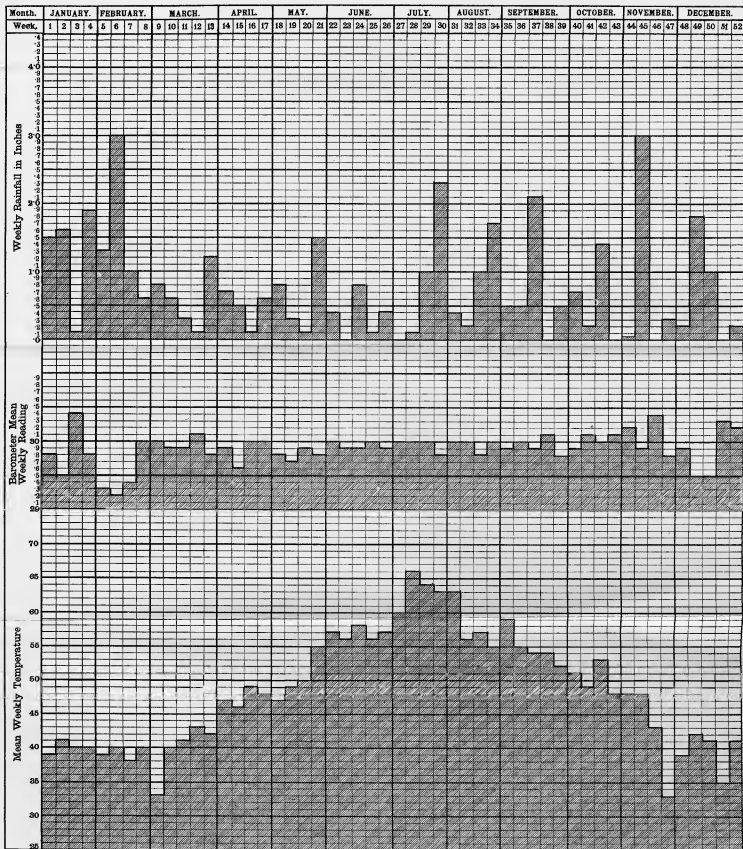


Chart showing death-rate per 1,000 of the population from Zymotic Diseases during the Years 1878-1904.

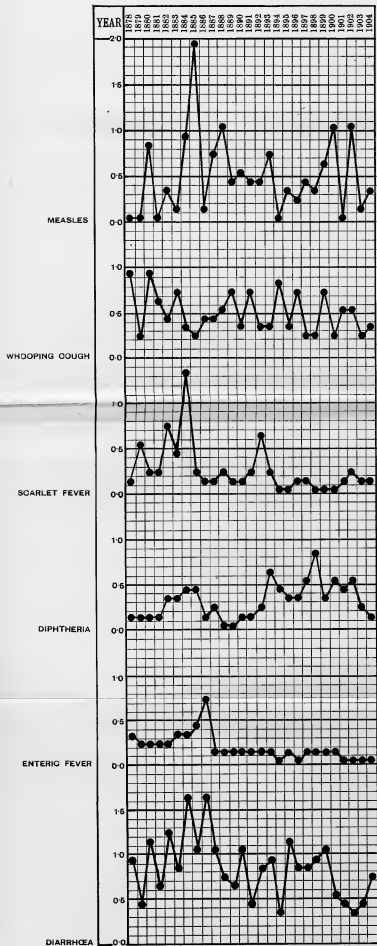
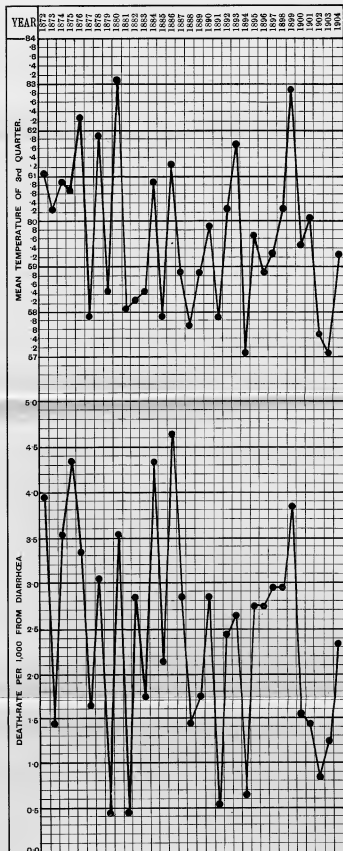
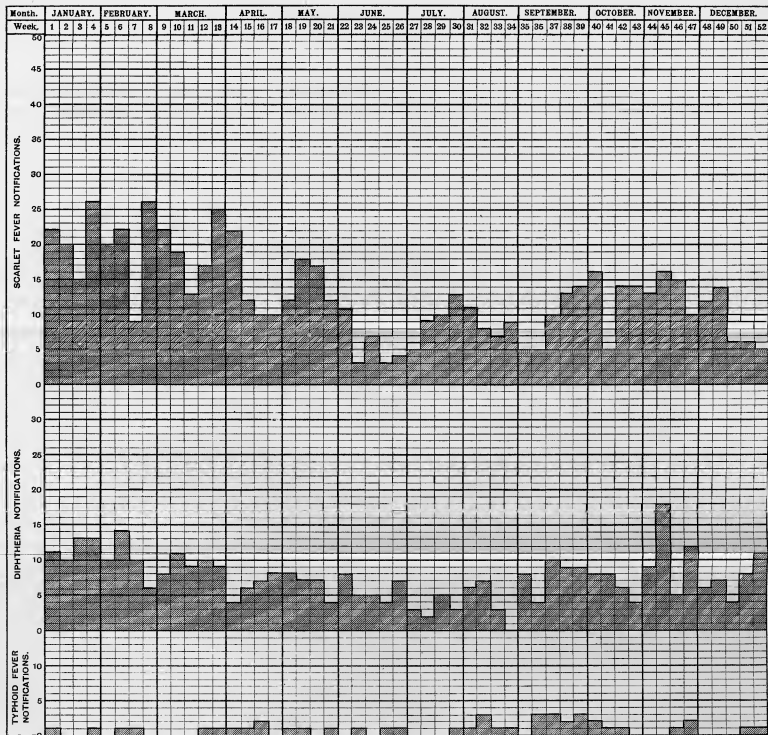


Chart showing the influence of temperature on the Diarrhoea death-rate in Cardiff during the Summer Quarters of the Years 1872-1904.



1904.

Weekly Notifications of Scarlet Fever, Diphtheria and Typhoid Fever.



1904.

Deaths from All Causes, and the Seven Chief Zymotic Diseases.

